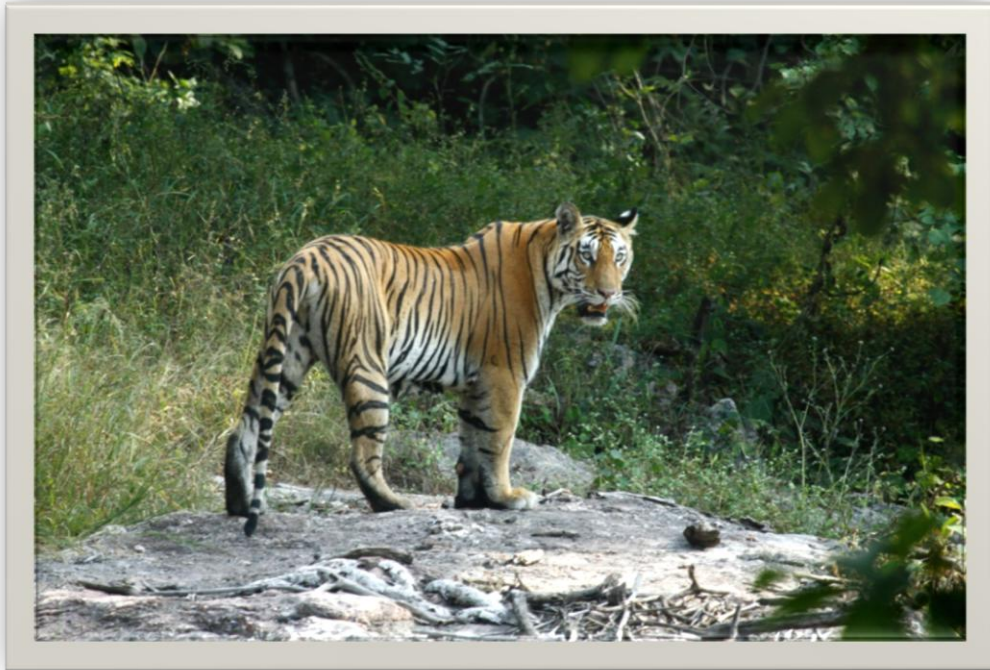


**TIGER CONSERVATION PLAN
CORE ZONE
FOR
PENCH TIGER RESERVE
MAHARASHTRA**



PLAN PERIOD

2013-14 TO 2022-2023

**PREPARED BY
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PREFACE

The Pench National Park came into being when the Government of Maharashtra declared its intention to constitute this area of 257.26 sq. km. vide gazette notification No. PGS 1375/121758-F I. dated 22nd November 1975. Later on Pench National Park has been declared as 25th Tiger Reserve of India vide Government of India letter F No. 1-1/96-PT, dated 18 February 1999 and Government of Maharashtra Resolution No. WLP-1095/CR-110/F-1, dated 23rd February 1999.

The Pench National Park comprises of two ranges which are separated by the Pench River. The forest is of Southern Tropical Dry Deciduous type in which Teak is substantially present. Important carnivores in its faunal wealth are Tiger, Leopard, Wild dog, Jackal Hyena, Jungle cat etc. Whereas herbivores include Sambar, Nilgai, Gaur, Chital, Barking deer, Chausinga, Wild boar, Bear etc. The Pench Tiger Reserve along with the adjoining forests of Pench Tiger Reserve (M.P.) forms an important joint conservation unit. The forests of the park are major catchments for the Totladoh reservoir and play an important role in ensuring its life expectancy.

In order to conserve this vast treasure of bio-diversity which has multifaceted significance, a planned and foresighted approach through a management plan was felt necessary. The management plan for Pench National Park was prepared in accordance to the guidelines issued by the office of the Chief Conservator of Forests (Wildlife). The plan period was of ten years from 2000-2001 to 2009-2010. Tiger Conservation Plan has been prepared in accordance with provision of Chapter IV of Wild Life Protection Act 1972 as amended in 2006 for the period from 2010-11 to 2019-20.

The Part-A of the Vol-1 of document contain the current state of resource of the Pench National Park, which is declared as Core of Pench Tiger Reserve. Basic information of proposed Buffer Zone and a outline of proposed Corridor is also given in the plan. It highlights the shortcomings and problems faced by the management of the Tiger Reserve using the SWOT analysis. On the basis of SWOT analysis and past experience of the last management plan, future management prescriptions is given in the Part-B of the Tiger Conservation plan. The part-B of the Tiger Conservation plan lays down the objectives of management of the Tiger Reserve around which the prescriptions for the strategies of various development works to be undertaken during the plan period are built. In Volume II detail data and maps are attached in Appendices related to Core, Buffer and Corridor.

While writing the Part-I of the Tiger Conservation plan, most of the basic data related to the various natural resources of the National Park is taken from the available secondary sources like various office records, Management plan of Pench National Park written by Shri Kamlakar

Dhange, and Shri S.B.Banubakode (2000 -01 to 2009-10), working plan for the Nagpur Forest Division written by Shri Jwala Prasad (1990-91 to 1990-2000) , the Management Plan of Nagpur Project Division of F.D.C.M. by Shri. Rathod and other relevant documents from the various sources. Primary data were collected for finalizing the plan.

Tiger Security Plan is also prepared and attached with the Tiger Conservation Plan. Tiger Security plan is an annual plan and needs to be written every year depending on the threat perception and changing protection need of the Tiger Reserve.

The Tiger Conservation plan was discussed on 12th March 2014 in the conference hall of National Tiger Conservation Authority New Delhi. Major work of drafting the Tiger Conservation Plan was done by Dr. Mohan Jha, IFS and Shri A.K. Jugade, ACF in 2009. The honorable panel members discussed and as per their recommendations the needful changes and inclusions were incorporated.

Shri M.S. Reddy, IFS

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Introduction of Tiger Conservation Plan Pench Tiger Reserve

I Introduction of the Area

The Project Tiger guidelines made it mandatory that every Tiger Reserve should be managed in accordance with a site specific Tiger Conservation Plan, which is the road map for managing a tiger reserve. Project Tiger thus became a role model for scientific management of protected areas in India. It laid down the concept of Core-Buffer Zonation, prescribed interventions for protection, habitat improvement, field data collection relating to changes in the composition of flora and fauna on account of protection, animal estimation and other aspects.

The Pench National Park came into being when the Government of Maharashtra declared its intention to constitute this area of 257.26 sq. km. vide gazette notification No. PGS 1375/121758-F I. Dated 22nd November 1975. Later on Pench National Park has been declared as a 25th Tiger reserve of India vide Government of India letter F No. 1-1/96-PT, dated 18 February 1999 and Government of Maharashtra Resolution No. WLP-1095/CR-110/F-1, dated 23rd February 1999.

As per the provision of Wildlife Protection Act Section 38 (V), an area of 257.26 sq km. of Pench Tiger Reserve was declared as Critical Tiger Habitat. Under the same provision of Wildlife Protection Act 1972, total area of 483.96 sq km. was declared as Buffer area of Pench Tiger Reserve vide notification no WLP 10-10/CR 108/F-1 dated 29/9/2010. Subsequently an area of 182.59 sq km. out of the buffer zone area was declared as Mansinghdeo Wildlife Sanctuary vide notification no WLP 10-07/CR/198/F-1 dated 7/11/2010. . There is one village, namely Fulzari in the Critical Tiger Habitat. The villagers have given their consent to shift in Ramtek Tahasil. Proposal for resettlement of people of Fulzari village is being prepared

The core area of the Pench Tiger Reserve comprises of Pench National Park, which was declared in the year 1975 covering an area of 257.26 sq.km. Buffer zone area also includes area of the Mansinghdeo Wildlife Sanctuary declared in the year 2010 which covers an area of 182.58 sq.km. Adjoining forest area of the Nagpur Territorial Division and FDCM covering an area of 387.42 sq.km was declared as the Buffer Zone in the year 2012. Within buffer zone area there are 48 villages spread over 96.54 sq.km of non forest land, so total of the buffer zone is 483.96 sq.km. The presence of female tigress with cubs has been recorded within the core area and have known to move into the buffer also. The Mansinghdeo Sanctuary area of the buffer zone is a recent conversion into the Sanctuary in 2010. The entire unit of Pench National Park and Mansinghdeo Sanctuary is a reproductive surplus area of the Pench Tiger Reserve

The major significance (broad picture) of Pench Tiger Reserve is as follows:

- Important Tiger source area, contiguous with the adjoining Pench Tiger Reserve of Madhya Pradesh. The latter has linkage with Kanha Tiger Reserves of Madhya Pradesh. This reserve has linkage with Satpuda Tiger Reserve of Madhya Pradesh and other tiger source population of Maharashtra like Nagzira, Umrer-Karandla and even Tadoba.
- The Habitat supports a good prey base with Tigers which also frequent the Madhya Pradesh area of the Tiger Reserve.
- The presence of National Highway 7 along the buffer of the Tiger Reserve and its proximity to big township make the area vulnerable.
- Illegal fishing in the Totaldoh Reservoir which fall in the area of Madhya Pradesh and Maharashtra Tiger Reserve jointly (30% in M.S. &70% in M.P.) is a serious issue to be dealt jointly by both states.
- The habitat of the Reserve has a portion of Totaldoh reservoir and its draw down areas provide forage for herbivores.
- Retrofitting safeguards on the National Highway and reciprocal commitments with Irrigation/ Power Generation Co. M.P./ National Highway Authority are important.
- Co-ordination with Adjoining Forest Divisions and fine tuning of forestry operations in buffer is important. Ongoing co-ordination with Pench Tiger Reserve (M.P.) authorities should be ensured.
- It is important to provide ecologically sustainable livelihood option in the notified Buffer.
- No drastic interventions relating to habitat are required as the habitat is already suitable, only maintenance, protection and monitoring is required.
- Voluntary relocation of only village present in Core needs to be taken up on a priority basis.

The corridor connectivity with Nagzira, Nawegaon etc need study during this plan period and restoration measures should be evolved.

II Description of the Tiger Conservation Unit

Consequent to the amendment to Wildlife (Protection) Act, 1972 in 2006, the National Tiger Conservation Authority, Ministry of Environment and Forest, Govt. Of India has issued detailed guidelines for preparation of the Tiger Conservation Plan. Based on these guidelines, this Tiger Conservation Plan covers an area of 741.22 sq. km. Consisting of Core and Buffer of the Pench Tiger Reserve of the state consisting of a sizeable number of tigers of . Core and Buffer of pench Tiger reserve consist of a Forest area of a total 644.68 sq. km and non forest area spreading over 48 villages having 96.54 sq.km. The whole area of Pench National Park has been declared as Critical Tiger Habitat. The tigers in this area would serve as source population which needs to be consolidated and strengthened by suitable management interventions. The buffer/peripheral areas are tiger bearing forests having potential for further consolidation. These areas are required to provide

- i) a habitat supplement to the spill over population of tiger and its prey from the core area,
- ii) to provide site specific, need based, participatory eco-development inputs to local stakeholders for rationalizing their resource dependency on Tiger Reserve and
- iii) mainstreaming wildlife concerns in various production sectors in the Buffer area. The Adjoining landscape is required to maintain connectivity to other Critical Tiger Habitat areas for the ensuring gene flow as an ecological requirement for long term survival of the species. They may also act as a smaller source by facilitating breeding and movement of the native wildlife population to colonize adjoining habitats. During the current plan adjoining landscape shall be identified after careful study and research.

The Pench National Park comprises of two ranges which are separated by the Pench River. The forest is of Southern Tropical Dry Deciduous type in which Teak is substantially its associates like Ain, Bija, Haldi, Dhawada, Tendu, Kalam, Arjun are also well represented in the area with Bamboo as undergrowth in specific patches. Important carnivores in its faunal wealth are Tiger, Leopard, Wild dog, Jackal, Hyena, Jungle cat etc. Whereas herbivores include Sambar, Nilgai, Gaur, Chital, Barking deer, Chausinga, Wild boar, Bear etc. The Pench Tiger Reserve along with the adjoining forests of Pench National Park & Project Tiger (M.P.) forms an important central Indian joint state conservation unit. The forests of the Park are a major catchment for the Totladoh reservoir and play an important role in ensuring its life expectancy.

The Core Zone includes the inviolate areas of tiger reserve and tourists activities are permitted in the areas identified in the tourism plan. The buffer zone includes the area surrounding the core zone which includes the area of Mansinghdeo Wildlife Sanctuary and remaining forest area in charge of Deputy Conservator of Forests, Nagpur Forest Division, Nagpur and Divisional Manager, Nagpur Project Division, FDCM Ltd., Nagpur.

The Wildlife (Protection) Act, 1972 was amended in 2006, and a separate Chapter (IVB) has been added on the “National Tiger Conservation Authority”. This Chapter, interalia, has enabling provisions (Section 38V) for preparing a “Tiger Conservation Plan” for the proper management of a tiger reserve, which will also include staff development and deployment plan. The core or CTH is required to be kept as inviolate for the purpose of tiger conservation. The buffer or area peripheral to critical tiger habitat is required to ensure the integrity of the critical tiger habitat with adequate space for dispersal for tiger species and to promote co-existence between wildlife and human activity with due recognition of the livelihood, developmental, social and cultural rights of the local people. The adjoining landscape is required to act as corridor for movements of wild animals between core areas.

Delineation of Area into Core, Buffer and Adjoining Landscape

The details of the area included in this plan are as follows.

A. Core area:

The core area consists of Pench Tiger Reserve (257.26 sq. km.). This area is presently under the administrative control of Chief Conservator of Forests & Field Director, Pench Tiger Reserve, Nagpur. As per the provisions of section 38(V) of Wildlife (Protection) Act, 1972, the process for notification of ‘Tiger Reserve’ has been completed. The area of Pench National Park has been notified as Core vide Govt. Notification dated 27.12.2007. The details of the area are as follows.

Name of Pench Tiger Reserve	Reserve Forest (sq. km.)	Protected Forest (sq. km.)	Other areas (sq. km.)	Total (sq. km.)
Pench Tiger Reserve	256.07	1.19	--	257.26

B. Buffer Area:

Presently only 182.58 sq.km (Mansinghdeo sanctuary) of the buffer zone area of the tiger reserve is under the administrative control of Field Director. The other forest areas of the buffer zone is under the administrative control of, Nagpur territorial forest division and Nagpur Project division of FDCM Ltd. . The details of the core and buffer area are as follows.

Abstract for Core & Buffer Zone

Sr. No.	Zone	Particulars	RF (Sq.km)	PF (Sq.km.)	Village area (Sq.km. km.)	Total (Sq.km.)
1.	Core Zone	PTR, Nagpur	256.07	1.19	0.95 *	258.21
2.	**Buffer Zone(at the time of declaration)	Nagpur F.D.	178.85	45.15	96.53	320.53
		FDCM Ltd Nagpur Project	163.42	--	--	163.42
		Total	598.34	46.34	97.48	742.16

*including village area of Fulzari village.

** including the areas of mansinghdeo sanctuary.

There are 48 villages within the buffer zone area. The details of the area are given in APPENDIX No. V of buffer zone area.

The extent of the village area is 96.54 sq.km. The Western side of PTR, Maharashtra connects it with the forest of Khapa range of Nagpur Forest Division. On Northern side Pench Tiger Reserve of the Madhya Pradesh exists. On the eastern side beyond the Nagpur-Jabalpur Highway. Forest of Nagpur Project Division of F.D.C.M. is there which is connected to the forests of Jamkandri range of Bhandara Forest Division. Up to Tumsar and Sihora the forest is contiguous patch. Near Tumsar in Sihora area there are barren hills which are connected to Forest of Madhya Pradesh on Eastern side and Forest of Gondia Forest Division of South East Side. Thus there is full connectivity of with other Forest. On Southern side the urban area starts.

III. Landscape and significance of the area for tiger conservation.

TERRAIN

The Park is located in the southern lower reaches of the Satpuda hill ranges, which form the catchments for river Pench. The Pench river flows almost through the centre of the Park in North - South direction. The folding and upheavals in the past resulted in formation of a series of hills and with major undulating portion lying in West Pench Range while East Pench Range is comparatively less undulating. Teak is a predominant species with it's associates like Ain, Bija, Haldi, Dhawada, Tendu, Kalam, Arjun are also well represented in the area with Bamboo as under growth in specific patches.

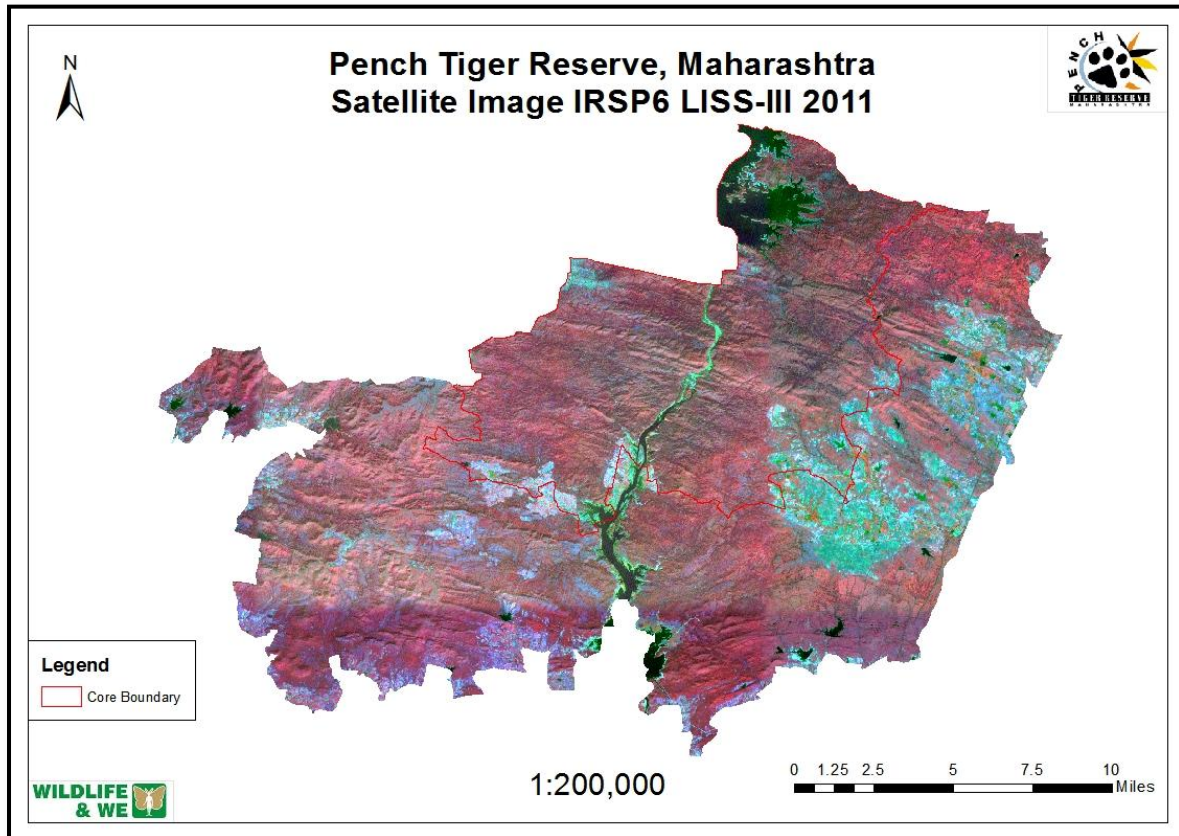
In West Pench range areas the land from river Pench gradually rises toward west forming a plateau between Lamandoh to Gawalighat. After gradually sloping down towards Narhar, the land again rises forming a series of undulating hills. Again the land rises and continues as a highly undulating plateau up to Totladoh. Most of the low lying lands on eastern side of river, Pench have come under submergence area of the Meghdoot Dam of Interstate. As per the agreement electricity generated will be shared between Madhya Pradesh and Maharashtra and water will be utilized for irrigation and water supply to Nagpur city.

Terrain of whole of the West Pench range area has a slope on eastern side to form a major watershed for the Pench river. Whereas, nearly half of the East Pench range along North-South line slopes towards Pench river to West while the eastern fringes of the Park has slopes towards east. The highest peak in East Pench range is located in compartment no.525 with a height of 583 m. while that on the West Pench range side is located in compartment no.685 with a height of 574 m.

A marked species preference towards topography is observed in that, herbivores like Sambar prefers hilly, undulating terrain with valleys while Chital and Gaurs prefer moderate undulating terrain with gentle slopes, through Chital has preference for flatter areas, Nilgai and four-horned antelope also seems to prefer flatter areas.

IV. Map of Tiger Conservation Unit/Landscape.

Digitized Map of Tiger Conservation unit /Landscape is attached here with in Tiger Conservation Plan



V. Legal provisions contained in the Wildlife (Protection) Act regarding Tiger Conservation Plan and brief description of their relevance in the Tiger Conservation Unit/ Landscape.

As per section 38V (4ii) of the Wildlife (Protection) Amendment Act – 2006, each Tiger Reserve is required to create a Buffer area consisting of areas peripheral to critical tiger habitat or core area, where a lesser degree of habitat protection is required to ensure the integrity of the critical tiger habitat with adequate dispersal for tiger. This area will promote the co-existence between wildlife and human activity with due recognition of the livelihood, developmental, social and cultural rights of local people. This area has been determined on the basis of scientific and objective criteria in consultation with the concerned Gram Sabha and an expert committee constituted for the purpose. The Buffer area of a Tiger Reserve has the following major functions:

1. To provide habitat supplement to the spill over population of tiger and its prey from the core area,
2. To conserve the habitat and wildlife with the active cooperation of stakeholder communities.
3. To providing site specific, need based, participatory eco-development inputs to local stakeholders for rationalizing their resource dependency on the Tiger Reserve and strengthen their livelihoods, so as to elicit their support for conservation of the area.
4. Mainstreaming wildlife concerns in various production sectors in the area.

The management of the Buffer Area will have to be carried out on following broad principles.

1. Implementation of forestry activities after mainstreaming wildlife concerns.
2. Implementation of eco-developmental activities for reducing resource dependency of local people on surrounding forests.

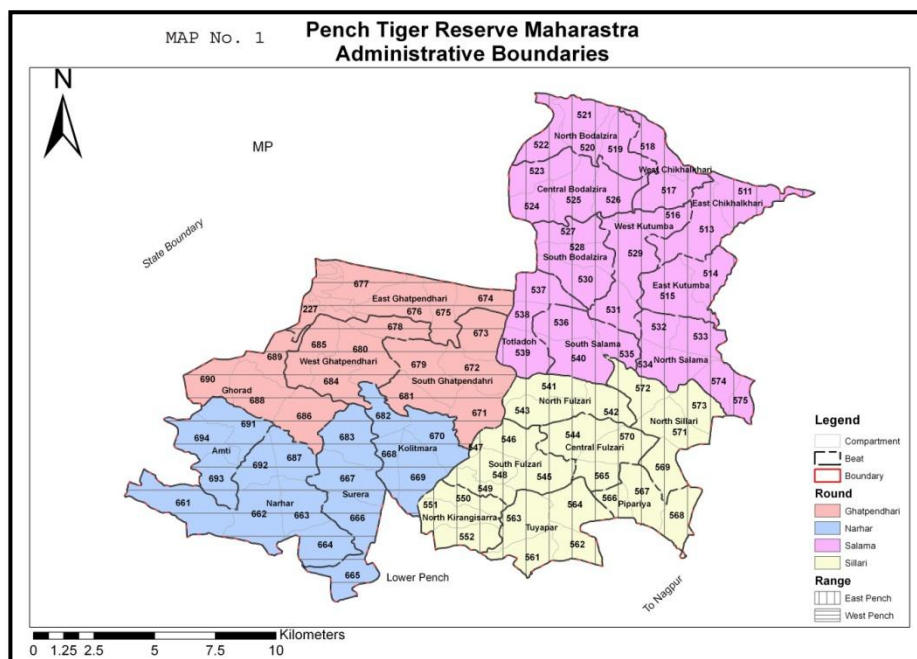
Pench Tiger Reserve, Maharashtra is the 25th Tiger Reserve declared by Govt. of India in 2000. It comprises of reserve forests and protected forests with exception of only one village i.e. Fulzari in core area, which is to be relocated. The villagers have given their consent to shift in Ramtek Tahasil. Proposal for resettlement of people of Fulzari village is being prepared and funds are sought from state government.

VI. Delineation of Area into Core and Buffer

The core zone of Pench Tiger Reserve extends over an area of 257.26 sq.km. The entire area of the core zone of Tiger Reserve is divided into 2 Ranges. 4 Rounds. 25 beats comprising of 91 compartments. The Eco-Tourism Plan for Pench Tiger Reserve has been approved by the Local Advisory Committee established vide G.R. No WLP-2012/CN 309/F-1 dated 9/11/2012. The Tourism routes as per eco tourism plan presently cover distance of 136 km. in the CTH area and the routes and carrying capacity of vehicles is identified as per NTCA guidelines and G.R. WLP-2012/CN 309/F-1 dated 21/1/2013. This covers an area of 6.12 sq.km which covers 2.38% (Considering the width of 45 metre. Along the road length). Mansinghdeo Sanctuary which is part of Buffer zone, tourism routes have been identified in Chorbahuli Range which cover a length of 60 km. where tourism has commenced. After the other forest areas in the buffer area (saleghat block and Devalapar block of Mansinghdeo sanctuary) are developed, eco tourism activity can gradually be shifted more to buffer area.

The Tourism Zone and Restoration zone are the part of Core area. The Restoration Zone extends over in area of 95.101 ha. which is in compartment No. 565. This area indicated comprises of village area of Fulzari village which will have to be restored after shifting of Fulzari village The buffer zone extends over an area of 483.95 sq.km. Which includes Mansinghdeo Wildlife Sanctuary and the areas with of Nagpur Forest Division and Nagpur Project Division of FDCM which is adjoining to the pench national park. Since the Maharashtra Govt GR dated 8th July 2014, issued to keep the entire buffer zone of the pench tiger reserve, Maharashtra under the unified control of the field director, pench tiger reserve. Accordingly, the forest areas of buffer zone with the territorial forest division and FDCM will be taken over by wildlife administration shortly.

Map 1 gives the Administrative area of PTR. The area statement (Range/Round/Beat wise) is given Appendix no. V .



Map 1: Administrative Area of PTR

VII. Adjoining Landscape (Corridors)

There is scientific proof that Pench tiger reserve, Maharashtra is Physically connected with Kanha National Park of M.P. and there gene flow. One Tiger which was collared by Dr. Jhala at Kahna National Park was found in Pench National Park of Madhya Pradesh. There is no physical barrier between Pench Tiger Reserve of Madhya Pradesh and Pench Tiger Reserve of Maharashtra, hence there is every possibility of the Tiger being present in Pench Tiger Reserve of Maharashtra moving to Pench Tiger Reserve of M.P. Pench Tiger Reserve, M.P. is also connected with Satpuda Tiger Reserve of M.P. The Eastern side connects it with forests of Ramtek Tehsil of Nagpur Division which is under the control of Nagpur project division of F.D.C.M. which is further connected to Jamkandri Range of Bhandara Division. Pench Tiger Reserve of Maharashtra thus connected with Forest of Bhandara Division and Gondia Division via Mogarkasa, Lendezari etc. and to Nagzira Navegaon tiger reserve. Pench Tiger Reserve of Maharashtra is also connected with Tadoba National Park through the Forest of Chimur-South Umrer Range-Ramtek Range-Deolapar Range with interruption of roads

only. Thus connectivity of Pench Tiger Reserve, Maharashtra is well established and it is now a breeding ground for Tigers in Central India. Proposed adjoining landscape can act as a good corridor for connecting the Pench Tiger Reserve with Nagzira Wildlife Sanctuary which has a sizable Tiger population.

Part A: The Existing Situation
Chapter I-Introduction of the Area

1.1 Name, Location, Constitution & Extent

1.0 The Pench National Park came into being when the Government of Maharashtra declared its intention to constitute this area of 257.26 sq. km. vide gazette notification No. PGS 1375/121758-F I. dated 22nd November 1975. Later on Pench National Park has been declared as 25th Tiger reserve of India vide Government of India letter F No. 1-1/96-PT, dated 18 February 1999 and Government of Maharashtra Resolution No. WLP-1095/CR-110/F-1, dated 23rd February 1999.

1.2 Name – Tiger Conservation Plan for **Pench Tiger Reserve** includes the core area which is the Pench National park, buffer area which includes the Mansinghdeo Wildlife Sanctuary, forest under the control of Nagpur Forest Division and Nagpur Project Division of F.D.C.M. Pench Tiger Reserve is named after Pench River which menders through the centre of Pench National park, dividing it into two ranges i.e. East Pench Range and West Pench Range.

1.3 Location–

Location by Geographic co-ordinates

a) Longitudes 79^o 4' 10" E - 79^o 24' 50" East

b) Latitudes 21^o 4' 15" N - 21^o 43' 10" North

Location by other Features

State : The Pench National Park is situated in the Maharashtra State.

District: Situated in Nagpur district.

Tehsil : Situated in Ramtek and Parseoni Tehsil

Circle: Geographically the area of the Pench National Park comes under the Nagpur Circle and Nagpur Division of the State Forest Department. The administration and management of this national Park comes under the control of the Chief Conservator of Forests & Field Director, Nagpur.

Division: The administration and management of this National Park comes directly under the control of the Deputy Director, Pench Tiger Reserve Ramtek.

Ranges: The area of Pench National Park is divided into East Pench and West Pench Ranges for management and administrative convenience.

Location by Biogeographic Zonation

As per the Bio-geographic classification proposed by the Wildlife Institute of India, Dehradun, the Pench National Park is classified as below:

- | | | |
|---------------------------|---|-------------------------|
| a) Bio geographic Kingdom | - | Paleotropical |
| b) Sub Kingdom | - | Indomalaysian |
| c) Bio geographic Zone 6 | - | Deccan Peninsula |
| d) Biotic Province - 6 E | - | Central Highlands |
| e) Sub Division or Region | - | Satpuda Maikal Division |

1.4 Constitution

As per Govt. Resolution No. WLP-10-07/CR297/F-1 dated 27/12/2007 critical Tiger Habitat has been declared and the entire core zone of Pench National park is declared as critical tiger habitat. The core zone of Pench Tiger Reserve extends over an area of 257.26 sq.km. (APPENDIX-I & III) The Tourism activity extends over in area of 8.055 sq.km. which includes the road width of 20 meters on either side as per Eco-tourism plan approved by LAC. The Restoration Zone extends over in area of 95.101 ha. which is in compartment No. 565. The tourism zone and restoration zone are now the part of core zone.

1.5 Extent (Area statement and Legal Status)

The entire area of the core zone of Tiger Reserve is divided into 2 Ranges. 4 Rounds. 25 beats comprising of 91 compartments.

The buffer zone extends over in area of 483.96 sq.km. which includes proposed Mansinghdeo Wildlife Sanctuary and the area of Nagpur Forest Division and Nagpur Project Division of FDCM which is adjoining to the Tiger Reserve.

The Pench Tiger Reserve has connectivity on the North with Pench Tiger Reserve, Madhya Pradesh, on East with forest area of Nagpur Project Division of F.D.C.M. in Ramtek tehsil of Nagpur District. On West it is connected with forest of Khapa range of Nagpur Forests Division and area of Nagpur Project Division of F.D.C.M. Being the first Tiger Conservation Plan, detailed survey has not been done to demarcate the exact

boundaries of these corridors. However, on the basis of map and discussion with field staff the adjoining landscape has been delineated. The area statement (Range/Round/Beat wise) is given Appendix No. V, See Administrative Map.

1.6 Notification

Pench National Park was notified Vide gazette notification No. PGS 1375/121758-F I. dated 22nd November 1975. Later on Pench National Park has been declared as 25th Tiger reserve of India vide Government of India letter F No. 1-1/96-PT, dated 18 February 1999 and Government of Maharashtra Resolution No. WLP-1095/CR-110/F-1, dated 23rd February 1999. The notified area of Pench National Park was enquired by S.D.O. Ramtek who recommended shifting of Fulzari village. As per the enquiry the entire area is devoid of rights

1.7 Approach & Access

1. By Road: Pench National Park is situated 80 Km. away from Nagpur.

- a. The Park boundary starts from 7 km on the Paoni-Totladoh all weather tar road which branches off from Jungli Paoni situated at 60 km. away from Nagpur on Nagpur-Jabalpur National Highway no. 7.
- b. Entry to West Pench National Park is from a branch road at Amdi on NH-7 via Navegaon-Khairy at a distance of 80 k. m., from Nagpur.

2) By Railway: Nearest railway stations are at

- a) Nagpur-80 km. from Totladoh
- b) Ramtek-44 km. from Totladoh which is a branch line (Broad Gauge) from Nagpur.

3) By Air : Nearest airport is at Nagpur 90 km. away.

4) Nearest Petrol/Diesel pumps are situated at

- a) Paoni - 20 km. from Totladoh
- b) Mansar - 40 km. from Totladoh

5) Important Townships

- a) Deolapar - 26 km. from Totladoh
- b) Ramtek - 47 km. from Totladoh
- c) Parseoni - 34 km from Narhar

6) Hotels: Eating houses are at Paoni, Ramtek, Parseoni, and Sillari.

7) Hospital: Government PHCs are located at Deolapar and Parseoni. Govt. Cottage hospital is at Ramtek. Little medical attendance is also available at Totladoh.

8) Telephone facility: Available at Totladoh, Paoni, Deolapar, Parseoni, and Pipariya with STD/SD facility. Post and telegraph office at Totladoh, Deolapar, Parseoni etc.

9) Transport Facility: Regular State Transport Bus Service available from Nagpur and Ramtek to Totladoh. In fair-weather, bus plies from Parseoni to Kolitmara in West Pench National Park, Railway comes twice in a day from Nagpur to Ramtek.

10) Time of visit: The Pench National Park is open to visitors from 1st October to 30th June during the year and between 6.00 hrs. to 12.00 hrs in the forenoon and from 15.00 hrs to 18.30 hrs in afternoon. Month and Time of the opening of Park can be changed by the Field Director depending on the requirement of Wildlife Management. The best season to visit this Park is from **October to May**.

1.8 Statement of Significance

1. Ecological Values: The National Park, in its Bio-geographic location is a true representative of the Central highland which comes under the Deccan Peninsula. The biogeography sub division or region which it represents is Satpuda Maikal division.

2. It inhabits in itself the rich bio-diversity with plenty of floral and faunal representative of this area. The conservation of this area ensures the sustainability of such ecological processes and bio-iversity, which definitely has a global significance. This area acts as lungs for this Nagpur and adjoining area

3. Faunal Value: Pench National Park is so rich in its faunal representation that most of the wild animals which identify with this area, have taken shelter here. It is home of many endangered species including tiger. This area along with its surrounding forests of Nagpur forest division and FDCM constitutes one of the only three areas in Maharashtra State supporting viable tiger population. This is why; the National Park has been declared a Tiger Reserve in 1999. (**India's 25th Tiger Reserve**). The vertebrate fauna includes 33 species of mammals, over 170 species of birds, reptiles, fishes including hill stream fishes as well as amphibians. The wealth of avifauna speaks for itself as it is indeed a bird watcher's paradise.

The Park is the abode of innumerable invertebrates including insects. A significant diversity of butterflies, moths, beetles spiders etc. also exist here. A lot of nature's treasure is hidden in the Pench Tiger Reserve which still needs to be explored to its hilt to become aware of the faunal richness of this area.

4. **Floral Value:** The Pench National Park is very rich in floral diversity pertaining to this area. The forest type is "**Southern Tropical Dry Deciduous Forest**" and is grouped as **5AC₃** under revised classification of the forests by Champion and Seth. The diverse vegetation type ranges from such climax forests as Dry Teak forest and Southern dry deciduous mixed forests to edaphic types as Boswellia forest, Mowai forest, Garari forest and primary seral stages like dry tropical Riparian forests. The Pench Tiger Reserve serves as a living repository of various economical, medicinal, aromatic, ornamental plant species diversity.
5. **Value as a Conservation Unit:** The forest of Pench National Park is contiguous to the forest of Pench National Park, M.P. all along its northern boundary adjoining to Chindwara and Seoni districts of M.P. It provides an unregimented habitat to the fauna thriving in this part of Central India so as to form a "Maharashtra – Madhya Pradesh Joint Tiger conservation Unit". It is noteworthy that both the portions have acquired status of Tiger Reserve. Contiguity of the habitat facilitates free and unobstructed movement of wild animals in the forest in search of favorable habitat. This area is a part of Satpuda-Maikal landscape which provides a vital breeding ground for the Tiger.
6. **Value as Catchments area:** The Pench river which emerges from Mahadeo hills of Satpuda ranges and the various nallas and streams which drain into it all flow through the forests of Pench Tiger Reserve. The Satpuda ranges which bear the forests of the Pench Tiger Reserve act as an excellent watershed area for the Totladoh as well as lower Pench reservoirs. The Hydro Electric Project generates 160 megawatts of electricity and contributes 10 million cusecs of water.

Chapter II- Background Information and Attributes

2.1 Geology, Rock and Soil

GEOLOGY: The area falls in North West fringe of Sausar-meta Sedimentary belt of Central India having structurally disturbed intensely folded and faulted rocks.

ROCK: Metamorphic rocks of archaen age. They are comprised of schists; gneisses, marble as well as granite, amphibolites, quartzite, calycyphyre, crystalline limestones, micaschist pegmalite and other manganiferous rocks known as gondite. Granites and marble bands are repeated due to folding. Rocks are exposed with deep and steep cuts across the river and are folded into major syncline and Anticline with Mansar formation at core of syncline, and Kadbikhera member at the core of anticline.

SOIL: The metamorphic rocks form sandy loose soils with patches of lateritic soil at places. Soil is well suited for teak and miscellaneous trees growth.

1)**Sandy Loam:** Most of the area inside the Park is covered with this type of soil. The soil derived from the weathering of granitic gneisses and biotic gneisses is dark brown loamy soil. These soils are fairly fertile on gentle slopes and very fertile in deep valleys.

2)**Red Soil:** Few pockets have red soil derived from rapid disintegration of the present rocks due to excessive folding and faulting with steep dips.

3)**Kankar and saline soil:** kankar and saline soils are found in some areas such as compartment 568 and 567. Such areas generally have sparse growth.

4)**Alluvial Soil:** The Alluvium is confined to the banks of Pench River and major streams. Alluvial soil consists mostly of the siliceous material mixed with humus washed down from the trap rocks on the hills in the upper reaches. Along the Pench River, alluvium is deposited in a narrow belt along its banks. Due to steep gradient, no sand deposit is seen along the upper reaches of the river. Nature of vegetation is closely associated with the soil types.

2.2 Hydrology and Water Sources

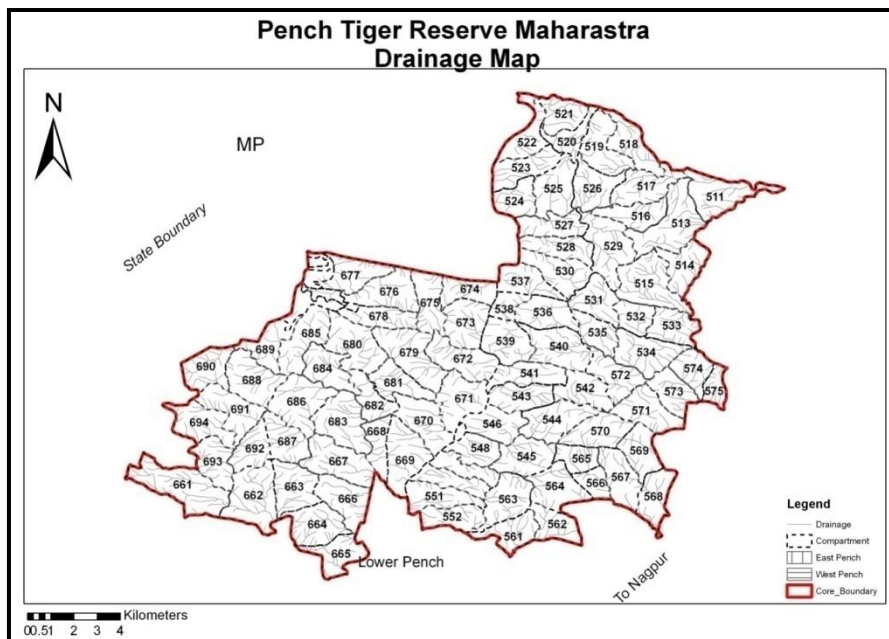
WATER - Water is the most important natural resource for the sustenance of life. Though the Pench Tiger Reserve is situated in hilly area with steep slopes, water resources both natural and artificial are quite adequate with respect to wildlife, although its seasonal availability puts a crunch on the habitat. Natural water sources are river, streams, springs, seepage ponds etc. Artificial water sources are reservoirs, tanks, dug out ponds, Anicuts, bunds, bore-well etc. The G.S.D.A. is consulted frequently for identifying ground water points whenever needed.

WETLAND & MARSHES - There are no naturally existing wetlands or marshes in the Park which is in general dry area.

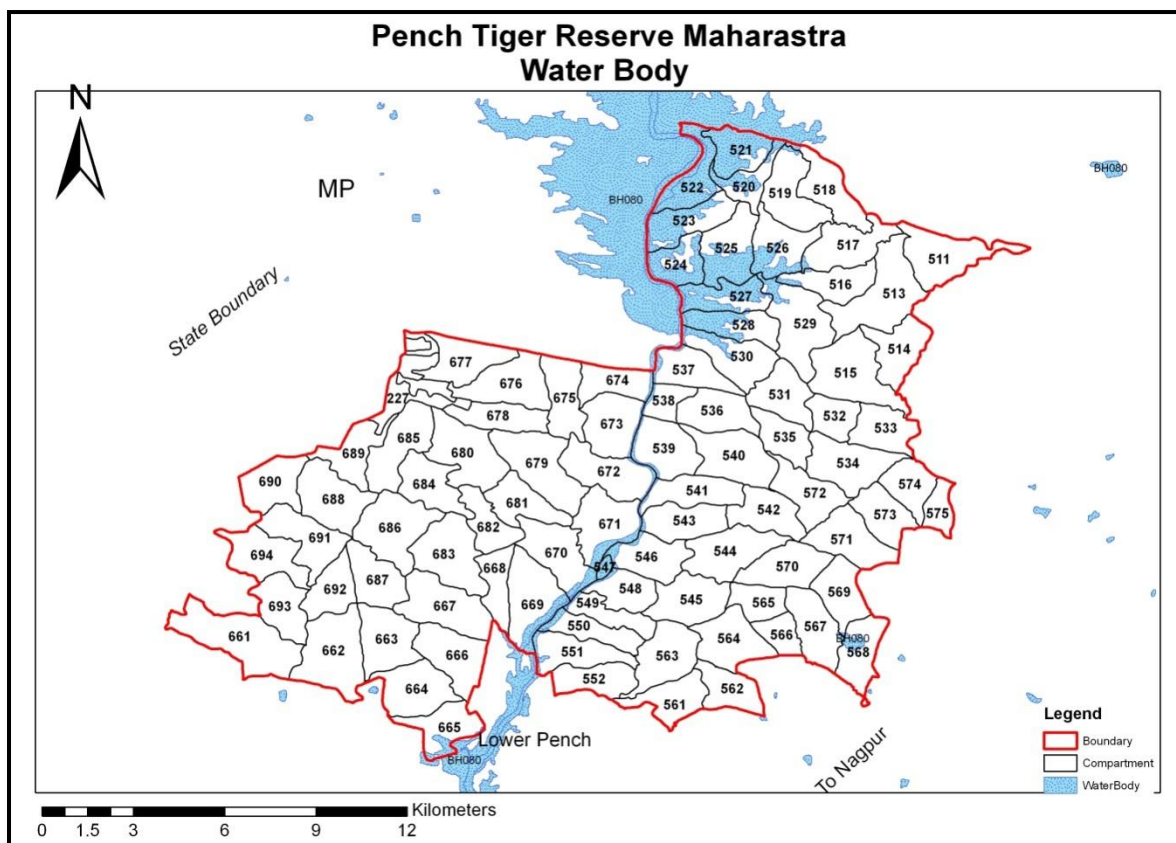
1. Pench River on the northern end of the Park is a major source of water in the Pench Tiger Reserve. It is about 6790 ha. in extent. The submergence area in Maharashtra side of the Park is 1993.78 ha. and that in M.P. is 4796.30 ha. (Chindwara 3072.30 ha. & Seoni 1724.00 ha).
2. The lower Pench reservoir created due to the construction of dam at Navegaon Khairi on the Southern end of the Pench Tiger Reserve is another artificial Source of water. About 216.103 ha. of Pench Tiger Reserve land has gone under its submergence. Both the reservoirs are very rich in avifauna as well as aquatic life.

NATURE & DISTRIBUTION OF SOURCE OF WATER

- 1) Pench river is one of the major sources of water in the Park. It originates near village Jirola in Chhindwara district of M. P., about 19 km. south east of Mahadev hills in Satpura ranges at an elevation of 1087 m. above MSL. It enters Maharashtra near village Kandlai, M.P. (200 km. from origins). Totladoh is 208 km. from origin whereas Ranidoh is 216 km. From its entry in Maharashtra to Totladoh is a stretch of 8 km. which has now gone under submergence. It joins Kanhan river near village Bina about 5 km. north of Kamptee to a total length of 257 km. from the origin.
- 2) Except for the accumulation of water in perennial pools called as Doh, the Rocky River bed mostly remains dry upto Gawalighat. Otherwise a number of streams and seepages draining into the river replenish the 'dohs'. The river is in full spate when the radial flood gates and sluices of the Totladoh dam are opened.



Map 2: Drainage in PTR



Map3: Water bodies in PTR

2.3 Vegetation Cover Types

FOREST TYPES:

Pench National Park has quite diverse plant community established in different forest types. The major forest type existing in the Pench is "Southern Tropical Dry Deciduous Forests". Named as sub group 5A based on the revised classification of Champion and Seth. Major portion of forests are of climax type of subtype.

1. 5A/c/I/b Dry Teak bearing forest and
2. 5A/c-3 Southern dry deciduous mixed forests.

1. Teak Forest :

In the dry teak bearing forest where Teak make up a composition of upto 50% to 60% and density ranges from 0.6 to 0.8, main associates are Ain, Lendia, Baheda, Salai, Achar, Garari and Bamboo. Teak plantations are

also interspersed with the natural forests. Good regeneration is seen. These forests distinguish themselves, as vast tracts become infested with teak skeletoniser and teak defoliator during the end of monsoon.

- a) **Over wood:** The associations of Teak are *Anogeissus latifolia*, *Lagerstroemia parviflora*, *Terminalia tomentosa*, *Boswellia serrata*, *Lannea coromandelica*, *Madhuca longifolia*, *Dalbergia paniculata*, *Aibizzia lebeck*, *Diospyros melanoxylon*, *Pterocarpus marsupium* etc. sparsely scattered trees of *Dalbergia latifolia*, *Bombax ceiba*, *Adina cordifolia* are also seen. *Syzygium cumini* and *Terminalia arjuna* trees are seen along large water course, river banks and small water covered islands in river bed for e.g. compartment no. 547.
- b) **Underwood:** It comprises of *Emblia officinalis*, *Grewia tiliaefoli*, *Careya arborea*, *Gardenia turgida*, *Cassia fistula*, *Gardenia resinifera* etc. Bamboo (*Dendrocalamus strictus*) occur sparsely. It occurs in valleys.
- c) **Shrubs:** *Helicteres isora*, *Flemingia bracteata*, *Calycopteris floribunda* is found.
- d) **Grasses:** *Apluda mutica*, *Degitaria spp.*, *Heteropogon spp.*, *Arogrostis spp.* *Themeda*, *Sorghum* usually occur on the ground flora along with many other less prominent grass spp.
- e) **Climbers:** *Mimosa hamata*, *Bauhinia vahlii*, *Butea superba* are common along the river and water sources.
- f) **Weeds:** *Lantana camara* is present in low density Teak forests near habitations. *Parthenium hysterophorus* (Congress grass) is present along river bed, road sides, nalla bed and tank foreshores.

3) MIXED FORESTS:

This type of forest covers large tract of the National Park. It can be recognized as the prominent vegetation type of the Pench. It may have teak scattered in small patches. Average density of the crop in the stocked area is 0.6. Good regeneration status is seen but growth is hampered due to repeated fire and grazing. The crop in general is young to middle aged, which a few matured trees in the over wood.

Floristic of this forest is as follows:

- a) **Over wood:** *Terminalia tomentosa*, *Lagerstroemia parviflora*, *Anogeissus latifolia*, *Tectona grandis*, *Pterocarpus marsupium*, *Bombax ceiba*, *Boswellia serrata*, *Chloroxylon swietenia* etc. which together form about 60% of the crop.
- b) **Underwood:** *Acacia catechu*, *Emblia officinalis*, *Butea monosperma*, *Ziziphus glaberrima* etc.
- c) **Bamboo:** These are seen on slopes and flats, locally present in some area. But their proportion is low.
- d) **Shrubs:** *Ziziphus oenoplia*, *Flacourtia indica*, *Carissa carandus*, *Woodfordia fruticosa* etc. are seen.
- e) **Herbs:** These are sparse and consist of a few seasonal. Some commonly occurring herbs are *Qcimum amencanum*, *Cassia tora*, *Kalimusli* etc.
- f) **Grasses:** A wide variety of grasses form the ground cover in most of the areas. Some of the common grasses are *Heteropogon controtus*, *Apluda mutica*, *Themeda quadrivalvis*, *Cynodon dactylon* etc. the grass growth is profuse under slightly open crop and in clear patches.
- g) **Climbers:** *Butea superba*, *Abrus precatorius*, *Asparagus racemosus*, *Mimosa hamata*, *Vitex negundo*, *Bauhinia vahli* etc. are seen.
- h) **Weed:** Weeds are prevalent in the overgrown area. Common weeds are *Tribulus terrestris*, *Cassia tora*, *Parthenium hysterophorus*, *Urena lobata* etc. *Lantana camara* is seen scattered at places. The other types or vegetations in edaphic type are spread in small patches. These have trees of particular species which greatly outnumber observe in a typical gregarious nature.

4) GARARI FORESTS:

The *Cleistanthus collinus* trees are seen in patches along the submergence which has developed to a coppice forest.

- 5) **BOSEWELLIA SERRATA FOREST AND MOWAI:** (*Lannea coromandelica*) forests are in even smaller patches.

6) PRIMARY SERAL STAGES FOREST

Seen along larger water course e.g. Pench river in the form of Dry Tropical Riverine forests. The species observed are *Terminalia arjuna*, *Syzygium cumini*, *Terminalia chebula*, *Schleichera oleosa* etc.

6) BAMBOO FOREST:

Bamboo occurs as undergrowth in Teak forest as well as gregariously in patches. Forest near Totladoh, Salama, has patches of gregarious *Bambusa arundinacea* on deep soil flats with moisture and along Pench river near Nandpur Rithi village etc. *Dendrocalamus strictus* occurs in teak forest and also on slopes and valleys. There is no exploitation of bamboo but it is either of poor quality or even absent due to various threats.

2.4 Wild Fauna, Habitats and Tropic Niches

2.4.1 RANGE OF WILDLIFE

Pench National Park is quite diverse in its faunal and also floral wealth. This includes a number of

endangered species. The faunal range is as given below in brief.

1) **INVERTEBRATES**

The Pench Tiger Reserve harbours a wide range of insects including beetles and ant species. Butterflies and moths belonging to a wide range also occur here. A host of Arachnids and have taken shelter here. Large number of Butterflies found in Park. It includes Danaid egg fly which is a Schedule I (Part IV) species listed in Wildlife (Protection) Act, 1972.

2) **MAMMALS**

About 33- species of mammals are observed in the Park, a sizeable numbers of which are of endangered status, namely, Tiger, Panther, Jungle Cat, Small Indian Civet, Palm Civet, Jackal, Sloth bear, Ratel, Common Giant Flying Squirrel, Gaur, Four horned antelope etc. List of mammals found in the National Park is given in Appendix XXIV.

3) **BIRDS**

Diversity in the wealth of avifauna in the Park is quite remarkable. Well over 170 species of birds belonging to 50 families of 17 different orders have been recorded here. These include some migratory and endangered birds including peafowl. **Five specie of critically endangered and endangered vultures are found in this area, making it one of the few last habitats of vultures in India.** They are King Vulture , Egyptian vulture, Griffon vulture , long billed vulture, Indian white backed vulture. White back vulture colony is in existence adjoining the back waters of Meghdoot Dam of Pench Hydro Electric Project. Seasonal variation in location of nests has been noticed but preference is for areas adjoining the back waters See Appendix No. XXV. Malabar pied Hornbill have their many nests in central portion of of Pench National Park.

4) **REPTILES**

The Pench Tiger Reserve is abode of 49 species of reptiles belonging to 16 family and 3 orders. Out of which 6 species are of endangered status, namely, Indian Cobra, Indian Rock Python, Rat snake, Russel's viper, Checkered keelback and Common Monitor Lizard.

5) **AMPHIBIA**

Around 7 species of amphibian belonging to 4 family and one order are found in Pench Tiger Reserve.

6) **FISHES**

The Pench river and reservoirs at Totladoh and lower Pench at Gawalighat and other water bodies shelter a variety of aquatic fauna in the shape of fresh water fishes a number of which are also hill stream fishes. Around 33 species of fishes belonging to 11 family and 8 Orders are found in Pench. Domination of Rohu, Catla and other similar fish species whose seed was released earlier has been noticed from the catch seized from illegal fishermen. See the Appendix No. XXVI

Reintroduction of Mahseer (Tor Sp.) In Totladoh Reservoir of Pench National Park

Fishes are the most abundant group of vertebrates both in respect of number of species, as well as individuals. However, over the years and more particularly during the recent past due to natural and anthropogenic stresses, aquatic biodiversity of Totladoh is getting depleted and as a result, many species have become endangered.

In fact, the role this class of aquatic vertebrate plays in the ecology was not much reckoned, although, a small proportion of it received much focus of attention as food supplement for human consumption and was experimented in a commercial point of view.

The intricate and complicated inter-relationship existing amongst various living entities and system of a water body eco-system constitute an integral part of a given area. Pench National Park, which has a vast expanse of lake, harbours a variety of aquatic fauna, fish being a prime occupant amongst it. As it was increasingly felt that the efforts of biodiversity conservation by wildlife wing of Maharashtra (Pench Tiger Reserve Management) did not adequately address needs of conserving key species of fresh waters, a maiden venture was stepped into by the foresighted initiative taken by Shri M. G. Gogate, the then Chief Wildlife Warden of Maharashtra State regarding reintroduction of Mahseer fish in Pench National Park in the year 1998-99.

Mahseer (Tor sp., Family-Cypnidae, locally called "Wadis") which has earned its name as the greatest sport fish the world over, existed in the lakes of Pench, National Park since long. However, surveys revealed that combination of factors like depletion of spawning grounds, loss of habitat, unchecked and indiscriminate fishing, construction of dam which has impeded migration of Mahseer and to an extent, impact of perdition by cat fishes, resulted in decline in the abundance of Mahseer Characteristic biological features as regards breeding, such as low fecundity, demersal (capability of sinking in the mud) eggs, longer hatching period, longer

semiquiescent stage soon after hatching etc. also make Mahseer vulnerable to all forms of decimation and depletion. Following species of this freshwater scaly fish, which can grow upto 70-80 kg. are known to exist in Indian waters

Sr. No.	Species	IUCN category
1)	<i>Tor khudree</i> (Syk-es, 1839)	Vulnerable
2)	<i>Tor khudree malabaricus</i> (Jerdon)	Critically endangered
3)	<i>Tor kutkarni</i> (Menon)	Data deficient
4)	<i>Tor mosal</i> (Hamilton - Buchanan)	Endangered
5)	<i>Tor mussullah</i> (Sykes)	Critically endangered
6)	<i>Tor progeneius</i> (McClelland, 1839)	Data deficient
7)	<i>Tor putitora</i> (Hamilton-Buchanan, 1822)	Endangered
8)	<i>Tor tot</i> (Hamilton-Buchanan, 1822)	Endangered

The Conservation Assessment and Management Plan (CAMP) workshop for freshwater fishes of India conducted by Zoo Outreach Organisation and Captive Breeding Specialist Group, India categorised these fish species in such categories (as per IUCN Red Data List criteria) that is surely a cause for concern.

Tata Electric Company (TEC) having its establishment of Lonavala on Mumbai-Pune Highway undertakes Mahseer breeding in its Walvan lake. The TEC through Shri Ogale Manager, Environment was courteous enough in agreeing to hand over Mahseer fish for the purpose of its reintroduction programme. Mahseer fish of the following description were transported to Nagpur and then to the rearing ponds of State Fisheries Development Department located at Navegaon Khairy of Taluka Parseoni.

Sr. No.	Species	Common Name	Average length	Appro. Age	Stage	Quantity (Number)
1.	<i>Tor putitora</i>	Golden Mahseer	50 mm	6 month	Semi fingerling	1000
2.	<i>Tor khudree</i> <i>Tor mussullah</i>	Deccan Mahseer	20-25 mm	1 month	Fry	10,000

The fishes were released on dated 17th August, 1999 in the rearing ponds because their size was too small for getting them introduced in the wild and careful rearing would have made them grow enough to defend themselves in their natural habitat. Prior to release, the rearing ponds were adequately prepared by ploughing, liming, and adding of cattle dung so that sufficient phytoplankton and zooplankton could develop thus providing food to this omnivorous fish. The ponds were repeatedly netted in order to screen out predatory fishes and insect larvae. Diesel emulsion was also spread over the water in order to control insect larval growth.

Initially, growth of fishes was stunted, as they were hardened in order to sustain adverse conditions existing in the wild. However, periodical measurements of their length showed a spurt in the growth after some period. They were regularly fed with admixture of fishmeal, groundnut oil cake and: rice bran in 4:3:3 proportions.

After the fish attained sufficient growth, planning for undertaking their reintroduction in wild was undertaken. Dewatering of ponds was started three days ahead of the actual shifting in order to facilitate easy netting and the resultant good recovery. On the day of shifting i.e. on dated 8th February, 2000, each pond was thoroughly netted to and fro. The catch was measured for its quantity and was temporarily stored in a "Hapa" (an enclosure made of very fine net for temporary storage of collected fish) set up in an adjacent pond. Weight and length measurements of a few representative individuals were taken, average of which is as under.

S.N.	Species	Average length(cm)	Average weight(gm)
1.	Golden Mahseer	18	92
2.	Deccan Mahseer	14	50

After this, the fish catch was released in a water tank made up of tarpaulin which was lined with polythene cloth made inside a truck carrier. The recovery percentage of the fish was worked out as 51% which was satisfactory.

The consignment was then slowly transported to the Saddle dam no. 7 road of Pench National Park. The fish were carefully released in the vast expanse of the Totladoh reservoir and thus a step was taken towards conservation of aquatic faunal biodiversity in the State. Photographic record of this operation has been maintained.

Negligible mortality was noticed even after a few days beyond the release. After release monitoring of

the fish stock was impracticable owing to vastness of the reservoir as also smaller size of the fish. A stock of 1500 Deccan mahseer fish left behind with the State Fisheries Development Department for undertaking breeding programme by them in Pench Tiger Reserve Mahaseer fish released were not noticed subsequently a independent re introduction project needs to be prepared.

2.4.2 STATUS OF THE WILD ANIMALS

Since 1990, regular estimation is carried out to estimate the population size of the wildlife for the management purpose. Considering the hilly terrain, scattered waterholes, heavy biotic interference, it is not possible to follow one particular estimation technique to estimate the number of wildlife within the National Park. Hence, pugmark techniques as well as waterhole estimation techniques were been followed simultaneously. Subsequently, as per instructions of from the Project Tiger Directorate, New Delhi Phse-IV monitoring technique for predator, prey and habitat was introduced in 2006 which also provided estimates of prey and predators. The estimation methodology followed is briefly discussed below.

- 1) Tiger and Panther are the key species estimated within the Pench Tiger Reserve. Along with Tiger and Panther the population of other animals like Sambar, Chital, Barking Deer, Chausinga, Nilgai, Gaur, Langur, Dhole, Wild Boar, Rhesus Monkey, Black naped hare etc is also estimated.
- 2) Generally the estimation is carried out in the month of May. The monitoring/estimation operation is spread over a week period and the Pugmark technique is split in Regime I and Regime II. Waterhole count for two days i.e. 24 hrs are used for estimation of other wild animals.
- 3) In case of Pug mark techniques, the National Park area is divided into 25 units, i.e. 17 units for East Pench and 8 units for West Pench range (1 unit corresponding to 1 Beat) One group is allotted to each unit/beat and the said area is covered thoroughly. In this method the Pugmarks of Tiger and Panther if seen are traced on tracing paper using glass tiger tracer and Plaster casts are also made. Other relevant information is also recorded.
- 4) In case of Water hole count, nearly 96 machans (50 machans in East pench and 46 machans in West Pench range) are erected at certain key waterholes. The estimation is carried out for full 24 hrs. From 14 hrs to 14 hrs. per day. This includes the night of "Vaishakh Purnima" or "Buddha Purnima" The observations of the group are recorded in a separate form. The list of the waterholes selected for estimation is given in the Appendix No.XXVII
- 5) At the end of the estimation, the whole data is collected and analysed and the final figure is arrived at after eliminating the double countings, if any. The data is also sent to CCF (WL) Nagpur for further analysis by the State Level committee.
- 6) During the estimation operation, there is active participation from the members of various nature clubs, individuals. Before estimation, advertisement is given local newspapers to encourage people's participation in the estimation operation. Proper and prior briefing is given to all the participants regarding estimation procedure.

There is a need to arrive at a specific estimation figure by employing various density estimation techniques at the same time which should be carried over round the year. For e.g. Dung and Pellet count, block estimation etc. Similarly, estimation figures should be statistically expressed in the form of a range.

In the year 1995, owing to frequent summer rains, water bodies and water courses were largely scattered all over the Park. Therefore, the techniques of water hole count was not employed because it would have necessitated establishment of a large number of machans, field personnel etc.

The estimation data since 1995 to 2007 is given in the Appendix No. XIV. In the year 2007 19 Tigers and 14 Panthers were identified as per pugmark estimation.

Phase-IV Monitoring Technique

The Tiger Task Force constituted by the National Board for Wildlife (2005) has endorsed the revised methodology/approach propounded by the erstwhile Project Tiger Directorate (now the National Tiger Conservation Authority-NTCA) and the Wildlife Institute of India (WII) for country level estimation/monitoring of tiger / prey status and its habitat. The said approach, interalia, comprises of the following:

- a) Country level assessment of tiger, co-predators, prey and habitat in 17 tiger States once in every four years using the double sampling method having three phases (Phase-I: Spatial mapping and monitoring of tigers, prey and habitat; Phase-II: Assimilation of spatial and attribute data; and Phase-III: Estimating the population of tigers and its prey).
- b) Intensive monitoring of tiger source populations in tiger reserves and protected areas in each tiger landscape complex (Phase-IV), and maintenance of a centralized photo-database of tigers at NTCA obtained from camera traps deployed across all tiger reserves.

- c) Routine management-oriented monitoring, which, inter alia, comprises of regular monitoring of tiger signs at beat level, which can potentially be integrated with monitoring of law enforcement and patrolling.
- d) Survey Design (for all tiger reserves except Sundarbans) for spatially explicit mark-recapture study involving research workers/scientists.

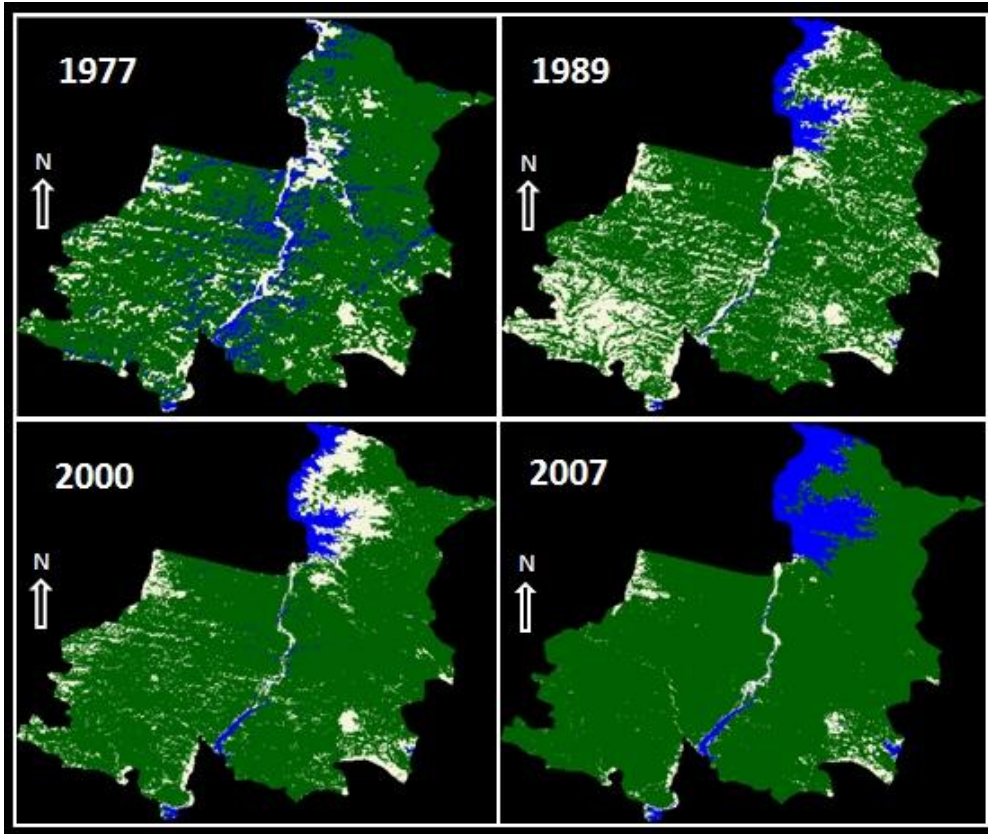
Though large scale migration has not been observed, crossing over of the border of Pench National Park M.P. is frequently seen. Local Migrations in search of suitable habitat in the form of local seasonal movement is often observed specially in summer season. Like when water dries up on the hill tops and grasses are scanty and coarse. Gaurs and Sambar move towards cool, moist valleys where tender grass and water is available in nearby area.

The study of tiger by using camera trap methodology was done for the first time Dr. Ullas Karanth and N. Sambha Kumar in the year 2002-03 and 14 individual tiger was identified from left flank captures. Subsequently the W.W.F. conducted survey in 2009-10 and 13 individuals 6 male, 4 Female, 1 unknown and 2 cubs were identified from Right flank captures. Dr. Ullas Karanth and N. Sambha Kumar again carried out study of tiger by using camera trap in May 2010 and identified 9 individuals 3 Male, 5 Female and 1 unknown gender. In 2012 again study of tiger by using camera traps was done in Pench Tiger Reserve. 16 individuals tigers 5 Male, 11 Female and 25 Panthers 13 Male, 12 Female were identified in the core area. This shows slight increase in tiger population in the core area.

2.5 Major Conspicuous Changes in the Habitat since Inception

There are no deteriorating changes in habitat since inception. The habitat has improved a lot since the encroachment in Totladoh has been removed in 2003. This is evident from the increasing in presence of herbivores and gallineous birds in and around the evicted colony site at Totladoh. There is a definite increase in prey base of large carnivore as in evident from the estimation data. Increase in Tiger population has been noticed during the Wildlife estimation in last decade. Wildlife Institute of India, Dehradun has also carried out estimation during 2005-06 by laying transect and after careful analysis came out with estimation of 19 (16-23) Tigers (excluding cubs) (APPENDIX–XIV Estimation) This clearly indicates that Management intervention and protection efforts has improved the habitat and prey base followed by healthy growth of carnivores population. The W.W.F. conducted survey in 2009-10 and 13 individuals 6 male, 4 Female, 1 unknown and 2 cubs were identified from Right flank captures. Dr. Ullas Karanth and N. Sambha Kumar again carried out study of tiger by using camera trap in May 2010 and identified 9 individuals 3 Male, 5 Female and 1 unknown gender. In 2012 again study of tiger by using camera traps was done in Pench Tiger Reserve. 16 individuals tigers 5 Male, 11 Female and 25 Panthers 13 Male, 12 Female were identified in the core area. This shows slight increase in tiger population in the core area.

Regeneration of many species like *Teak*, *Garari* is very conspicuous. A detail study is planned to find out the changes in Bio-diversity Index during the current plan. A remote sensing study conducted by Pinki Mondal and Dr. Jane Southworth of the University of Florida, USA reveals that almost 8% of forest cover was lost between 1977 and 1989, partly due to the submergence resulting from the Totladoh dam construction, and partly due to the regular forest management activities. The increased degree of protection and management interventions had positive effect on PTR forest cover. The Park not only recovered from the previous forest loss, but it also gained notable amount of forest cover – around 12% during 1989-2000 and 5% during 2000-2007. (See the Photo below)



1

Figure

showing classified satellite images of PTR from 1977, 1989, 2000 and 2007. Green color represents forest, white represents cleared forest and agricultural land, blue represents water bodies

3.1 Distribution

DISTRIBUTION OF WILD ANIMALS.

The distribution of animals in any area is directly dependent upon proper interspersions of various plant communities and juxtaposition of habitat units i.e. food, water, and cover. The wild animals in the Park show concentrations in certain parts, particularly in East Pench range. Sambars and Gaurs are essentially the animals of hilly country. Sambars are seen along Pench river. Gaurs keep to moist valleys near Saddle Dam No. 7, Kantrautar nalla, Chichban area, Gawalighat, Surera beat, Hattigota etc.

Chitals prefer edges of grassy forests and bamboos. They inhabit topography ranging from flats to gentle undulations. Seen in Chikhalkhari near boundary adjoining Pench National Park, M.P. and also near forests of villages like Kirangisarra, Kolutmara, Narhar etc.

Barking deer prefers hilly and woody country with dense underground like as seen near Bakhari, Chitalmandav area etc. whereas, Chausinga on the other hand prefers undulating terrain having open canopy and grassy forest floor.

Nilgai or blue bull prefers grass and patches of scrub preferably Pivarthadi area, Fulzari forests etc. Sighting of Chevrotain or Indian Mouse Deer has been reported in grass covered rocky patch. Tiger inhabits cool, moist shady places. It inhabits places where water availability is ensured round the year, prey density is high and sufficient ambush cover is there like Chitalmandav, Anjanpani nalla, Rohdeo nalla, Chapatgota nalla, Chipad nalla etc. Panthers thrive in all types of habitat with special preference for small prey viz. Langur (*Presbytis entellus*) Wild Pig (*Sus scrofa*) Jungle fowl (*Gallus gallus*) etc. They are often sighted near villages.

Sloth bears occupy hilly rocky outcrops with areas infested with 'mahulbel' and area with sufficient Jamun (*Syzyium cumini*) Fig (*Ficus species*) Bel (*Aegle marmalos*) Tendu (*Diospyros melanoxylon*) Mango (*Mangifera indica*) trees and also insects particularly termites. They exhibit special liking for honey, mahua flowers and excavate termiteoria. Claw marks of climbing up on a tree like Arjun for honey are frequently seen.

Wild boars are seen in moderately open forest but mostly concentrated in areas adjoining agricultural fields. Wild dogs in packs are seen in good numbers. They need adequate water, shade and food such as Langur, Sambar, Chital etc.

Langurs are seen inhabiting forest covers in association with Chitals. But Rhesus macaques are seen on outer fringes of forest and also near human habitations. They have undoubtedly proved to be a menace for inhabitant of Totladoh and picnickers at Ambakhori.

Jackals are seen in open, scrub forest adjoining to Pipariya and Sillari villages. Wolves have never been seen. Flying squirrel has been often sighted near Chichban and other area of West Pench range.

A large number of birds are seen along water course. White necked stork and open bill stork is seen near old Bodalzira Road, Kolutmara. Whereas, some water fowls and ducks are seen in Bakhari, Fulzari, Pipariya, Sillari tank etc. Malabar pied and grey Hornbills are seen near Kolutmara, Sillari, Totladoh etc. Pitta is seen in West Pench range.

3.2 Abundance Status

As per 2007 estimation (Appendix XIV) there are the following animals in core zone of Pench Tiger Reserve.

There are 19 Tigers, 14 Panthers, 640 Bison, 1659 Sambars, 4277 Chitals, 640 Nilgai, 2484 Hanuman Langur and 1221 Wild Boar. Most of the wild animals are seen around the Totladoh reservoir in East Pench Range. In West Pench Range sighting of animals is less. It may be because of dense forest and undulating terrain which is prevalent in West Pench Range. Waterholes are also more in number and spread out in West Pench Range. Also there are limited roads and hence the visibility is less. On North-West side of West Pench Range in Madhya Pradesh there is cluster of about 100 small villages. On Western side Wild animals are seen in abundance in the area in charge of Nagpur Project Division of F.D.C.M. Ltd. In that area also breeding population of Tiger exists.

Through that area Pench Tiger Reserve is connected to Satpuda Hills in Madhya Pradesh. Number of animals counted as per 2007 Estimation in given Appendix XIV. The estimation figure shown in the appendix is of Pench Tiger Reserve only. In 2008 and 2009 no estimation was undertaken. Now the new method developed by the WII, Dehradun will be used to monitor the Tigers, Co-predators, Prey density as Phase IV exercise carried out in 2012-13 has given entire prey density as 53.2 animals per sq.km. Estimated preferred prey species abundance in Pench Tiger Reserve Maharashtra Tiger Reserve.

SR	Preferred Prey	Density/Sq.km +SE	3/4 th Average Female weight	Available Biomass Prey kg per Sq.km(Mean+-SE)
1	Chital	26.8 _{+7.7}	30	804 _{+ 231}
2	Sambar	8.7 _{+ 2.1}	150	1305 _{+ 315}
3	Wild Pig	16.1 _{+5.6}	40	644 ₊₂₂₄
4	Gaur	1.6 _{+0.6}	300	480 ₊₁₈₀

3.2.1. Prey Density in Pench Tiger Reserve(Core) Computing Carrying Capacity of Tigers in Pench Tiger Reserve, Maharashtra (Core and Buffer separately)

CV: - Co efficient of variance, DS: - density of clusters, D: - density of animals, Standard Error, CI:- Confidence Interval.

	Preferred Prey	Density/Sq.km +SE	3/4 th Average Female weight	Available Biomass Prey kg per Sq.km(Mean+-SE)
1	Chital	26.8 _{+7.7}	30	804 _{+ 231}
2	Sambar	8.7 _{+ 2.1}	150	1305 _{+ 315}
3	Wild Pig	16.1 _{+5.6}	40	644 ₊₂₂₄
4	Gaur	1.6 _{+0.6}	300	480 ₊₁₈₀

Predicted Tiger Density Calculation (Haywards Formula) $y = -2.158 + 0.377x$

$x = \log$ of predicted predator density, $y = \log$ of preferred prey biomass

Total Preferred Prey Biomass- 3233 (+ 950) Kg/Sq.km

Predicted Tiger Density in core area - 14.63 ± 9.21/100 Sq.km

Current Tiger Density in core area

as per 2012-13 camera trap report: 6.00 /100 Sq.km

3.3 Prey-Predator Relationships

Ratio of Prey species with predators existing in that area is the most important ratio. The balance of prey -predator ratio is to be maintained to avoid the future hazards. For the existence of predators and co-predators in the area the sufficient number of prey species is required. Otherwise the predator will go in another area searching for the prey species. In the core zone the number of predators is sufficiently high. Number of prey species has to be increased by increasing the number of waterholes and the extent of meadows in the core zone area.

Sambar is the main prey-specie for Tiger due to its size. Also Bison is an important species. Now a days Bison are found in abundance in the area vacated around Totladoh Reservoir which was earlier illegally occupied. Sambar is generally found in hilly area and it is found near the reservoir in Saddle dam Area.

3.4 Assessment of Threats

At present the existing irrigation colony has been abandoned except for few inevitable staff staying. The Madhya Pradesh Electricity Board has to shift their staff from Totladoh as per High Court order. But till the alternative arrangement of accommodation of the staff is constructed bare necessary staff for operation of the project is at present staying in the area. The compartment No. 565 wherein village Fulzari is situated has also gone under encroachment for agriculture. About 15 persons have encroached upon 30.17 ha of reserved forest land initially. Now the extent of agriculture land plus inhabitant area is about 75 ha. Careful survey and measurement of this land is quite necessary, because the village is contemplated for resettlement outside the Pench Tiger Reserve. Proposals for resettlement of Fulzari village has been submitted by Govt. of Maharashtra to Govt. of India for approval. In near future resettlement will be carried out. The protected forest compartment No. 227 admeasuring 118.845 ha. in village Ghatpendhari needs to be carefully surveyed for any encroachment for agriculture. As the encroachments are before December 2005 the encroached land will be allotted to eligible

people as per criteria of forest right act 2005. The encroached land will have to be acquired through resettlement process.

POACHING

A) Nature of Offence Occasional cases of poaching are recorded in the Pench Tiger Reserve. The offences are mostly done by local tribal population for the purpose of meat, antlers only. Traps made of thin wires are laid across the away to trap smaller animals like hare, peacock or jungle fowl, etc.

The boundary of core area is quite porous and presence of villages on the boundary increases the vulnerability. Evolving a effective patrolling protocol assisted by network/protection huts on the fringes can prevent poaching to a great extent. The area being inhabited by tribals is notorious for hunting of ungulates for meat. Occasionally incidence of accidental predator mortality are also encounter when actual target is hunting of ungulates. Therefore, there can be no alternative to strict vigilance through patrolling.

Poaching of large bodied animals like chital or Sambar- by electrocution has been noticed. A thin wire is thrown on high voltage transmission line and spread across a regularly used animal track. The animal walks into it and gets electrocuted

Poaching of herbivores with the help of domesticated dogs by the local tribal is noticed especially during summer months. An incidence of poisoning of hunted carcass was noticed in the year 1993-94.

- a) A list of poaching cases is shown in Appendix No. XXXI. After formation of Totladoh water body in the year 1990 the fisheries department managed it and released fish seed in it and over the year fish population has increased Major constraint in providing total protection to the National park area of the core area is the age old problem of illegal fishing in the Pench reservoir. Total area of the reservoir is 77 sq.km of which 40% comes within the jurisdiction of Maharashtra State Forest Department. Presence of massive stock of fish attracts inhabitants of the surrounding villages to illegally enter and catch fish which is subsequently commercially marketed on a large scale. In the past the fishing was regulated by the Irrigation authorities, hence people were accustomed to fishing in the reservoir which provided a reasonably sound economic return which literally became the sole livelihood of enlarge number of families. Later the reservoir was also given the status of national park. Hence, the fishing activities were prohibited. This gave rise to a conflict of very serious nature. The fishermen were not willing to abandon the lucrative business of fishing in the reservoir and resorted to aggressive activities moving at odd hours through the area creating path ways to approach and also to dispose the catch. The fishing activity attracted criminal elements which has given a dimension of mafia in that area. Such constant movement of groups of fishermen traversing the area to go the water body at odd hours is a major disturbance to the existing fauna which affects the normal behaviour of the animals and influences their breeding which subsequently adversely affects the prey productivity and consequently the predator productivity.
- b) Increase in vigilance and frequent patrolling of vulnerable areas, surprise checking has shown results. patrolling of the area on foot in specific time period by the crew stationed in protection huts all the year round have proved to be successful in curbing Poaching, in addition to prevent fire. Nevertheless, the existing staff was inadequately equipped in arms/weapons, vehicles. Provision of Special Tiger Protection Force of 3 Range Officers, 81 Forest Guards and 27 Forest watchers by NTCA has proved to be effective. Combined planned operation of Maharashtra and Madhya Pradesh staff against the fishermen if done repeatly will be effective accompanied by efforts to counsel the fishermen and providing viable alternative livelihood option.

ILLICIT FELLING

The Park is surrounded by a number of villages. Similarly, villages and human habitations are also inside the Pench Tiger Reserve All these exert a pressure on the forests of Pench Tiger Reserve for poles, small timber, firewood etc of all the species. Teak is most favorable for obvious reasons, and the illicitly felled material is transported by head loads, although bullocks are used occasionally. Axe is used for felling of timber. At times girdling of tree trunk is done in advance. Teak trees which have got dried due to some reason are the target because they are straight, sound and already seasoned. Compartments adjacent to Totladoh settlement, viz. 537, 538, 536, 530, 539. on the southern boundary comptt. No. 567, 564, 566, 562, 561, 552, 568, and also 227, 685, 689, 690 on the Western boundary are vulnerable to illicit felling to a small extent. The felled material is consumed locally for house building, agricultural implements and also for making of furniture in Totladoh.

Strict checking of vehicle at all the exit points, regular patrolling of sensitive areas, checking of wooden articles at the time of transportation of material outside the Pench is done to keep illicit felling under check.

4.1 Conservation History

WILDLIFE CONSERVATION STRATEGIES AND THEIR EVALUATION BEFORE NOTIFICATION:

Prior to reorganization of States, the Wildlife Conservation in this part was through the implementation of the provisions of Indian Forest Act, 1927 and the shooting rules framed under section 26 (I) and 76 (d) by Ex-Madhya Pradesh Government combined with the Wild Birds and Animals Protection Act, 1912. Shooting block system was started in 1927 where on receipt of permission from Conservator of Forests, the D.F.O. used to permit shooting in certain reserve forest area or blocks abundant in games.

The Bombay Wild Animals and Wild Birds Act, 1951 was extended to Vidarbha Region from 1/6/1961, which prescribed a closed season for hunting and also prescribed registration of arm license holders with the Wildlife Preservation officer. The Indian Board of Wildlife was constituted in 1952 which led to the passing of National and State Park Act, 1971. Shooting of Tiger was prohibited for periods of 2 years vide G.R. No. WLP/1570/45404-Y, dated 25/7/1970. Under Rule 20 of Wildlife (Protection) Rule, 1975, no game blocks have been notified in this division since 1980-81. Hunting was totally banned in the 'Closed time' between 1st of April to 31st of October every year. No zoning of the area was done.

“AFTER NOTIFICATION”

After the notification of this area as Pench National Park with effect from 1975, it started getting strict protection. Application of Wildlife (Protection) Act, 1972 with effect from 1st June, 1973. and the subsidiary acts were strictly done. Hunting of wild animal was strictly prohibited unless it is specially permitted. Felling is banned in National Park as per D.O. letter No. TRS-1088/PK-265, F-6, dated 7/6/1988 from Secretary, R. & F. D. All kinds of destruction, grazing, exploitation, damage to the habitat of wild animals are strictly prohibited. The recent amendment of 1991 to the Wildlife (Protection) Act, 1972 has also strengthened the wildlife protection activities.

After the notification aim of the management is to protect, maintain and improve the environment of the Pench National Park. Hence, specific measures in terms of protection of forest areas, habitat improvement works, soil moisture conservation works and tourism development works have been undertaken. But for the tremendous disturbance and biotic pressure inflicted on the forests of the Pench Tiger Reserve at the time of construction of the Pench Hydrel Dam at Totladoh, the Pench Tiger Reserve could have been an excellent abode for the flora and fauna.

4.2 Habitat Management

In order to favour sightings of wild animals and also to improve their habitat, a number of measures have been undertaken. Wallow sites and salt licks have been identified and are replenished, when needed. Clearance of vegetation under transmission line which also works as view line is periodically undertaken by MPEB. Whenever the vegetation grows above 15 feet height Clearance of compartment boundaries and fire lines serve the same purpose. Water availability is enhanced by taking adequate conservation measures in the Pench Tiger Reserve Creation of meadows and fruit plantations had been done in the past of favour wildlife sightings. Meadow development has been undertaken in past which needs to be managed during the current plan.

Infestation of the openings by *Lantana* reduces the forage availability for herbivores need to be systematically eradicated at least in the flat terrain areas.

4.3 Protection and Intelligence gathering

This is the first Management Plan of Pench Tiger Reserve. Plan period is from 2000-2001 to 2009-10. There are Protection Huts in East & West Pench Range. Three labourers are there in each protection hut. They carry out the protection work moving on foot throughout the area in day time as well as during night. They are supported by the field staff Forest Guards and Foresters. Also there is Protection Squad for high tension electric lines which move in jungle under the line and ensure that no illegal works are carried out with help of electricity from the high tension power lines. There are anti-poaching squads which move using the boats and ensure that illegal fishing is not being carried out.

The anti-poaching squad has developed informers network in these surrounding villages who are entertained by way of payments, favours, recognition on different occasions by the Departments or through NGO's who are active in the concerned villages.

So far a list of people who purchased boats, who supplied the boats, boat manufactures etc. has been provided by the Anti poaching team to Chief Conservator of Forests & Field Director, Pench Tiger Reserve, Nagpur for further action.

Network has been developed to inform the Anti Poaching Unit of new people visiting the sensitive villages.

So far, in last 3 years, no poaching of animals for skin & trophies has taken place in Pench Tiger Reserve. But there are strong reports of Bahelia groups becoming active in Central India. Bahelia groups are known for poaching Tigers for skin & bones.

The Anti Poaching Unit also moves inside the Pench Tiger Reserve to check the protection measures & execution of such measures and makes a note of it in the protection hut registers or check naka registers if improvement & changes are felt necessary.

4.4 Tourism and Interpretation

TOURISM SUB – PLAN

The Pench National Park has assumed a place of prime importance in the tourist's agenda. These tourists prefer to pay a visit to the Pench Tiger Reserve while visiting other nearby places, too. Thus, "Tourist Golden Garland" in the shape of Pench National Park - Ramtek - Khindsi – Nawegaon Khairy – Khekra Nalla Project is planned for future.

Nevertheless, attention would be given to education and interpretation of Park resources to the visitors and also to the local community with an objectives of putting an emphasis on increasing public support for wildlife conservation by creating understanding and fostering awareness and concern with respect of conservation needs.

In 1999-2000 under Maharashtra Forestry Project an interpretation centre was developed near Sillari. This is having facilities for displaying exhibits, showing audio visuals, accommodation and tent camping etc.

Interpretation Centre should aim at increasing people's interest in conservation issues by making them understand Park's values by providing information about its history, ecology, habitat, wildlife, management problems etc. Recreation with nature awareness for the visitors and students is the sole aim of the Sillari Nature club and Koltimara Nature awareness centre.

4.5 Research and Monitoring

Research and monitoring is the keystone to scientific management of the Pench Tiger Reserve upon which should management and administrative prescriptions should be based. Its focus needs to be laid on the nagging management problems of immediate importance. These being the prescriptions for the first management plan of the Pench Tiger Reserve. With reference to the objectives framed, the emphasis of this important activity should be to explore the Park's hidden treasure of flora and fauna and build up sufficient data bank. This will make a strong foundation for the management prescriptions in the subsequent management plans.

Research Projects

One research projects related Pench Tiger Reserve has been completed. Distribution and Dynamics of Tiger and prey population in Maharashtra (2002-2005) by U.Karanth. Detail findings of the projects are as follows:

Distribution and Dynamics of Tiger & prey population in Pench Tiger Reserve of Maharashtra.

It provides scientific input on specific habitat development to provide sound scientific base to Tiger Reserve Management. It is study of Population dynamics of Tigers and its prey base. It includes

- 1) Mapping of area with prominent physical and logistic features.
- 2) A bench mark Camera-trap survey of tiger abundance at 60 locations and 715 trap Nights.
- 3) Line transect survey of Principal prey species to estimate prey density over 30 transect lines over 112 k.m. Length.

Project was completed in 2005. The project has provided estimation of density of predator and prey species as given below.

Tiger	-	7.3/100 sq.km.
Chital	-	5.8/ sq.km.

Sambar	-	5.9 /sq.km.
Chausinga	-	1.1/ sq.km.
Gaur	-	0.8/ sq.km.
Nilgai	-	0.5 /sq.km.
Pig	-	2.0 /sq.km.

Monitoring of Tiger and prey population

Maharashtra state has a large forest area of which 6000 to 9000 sq.km. is potentially a good tiger habitat. Tiger population in Tiger Reserve is reported to be small i.e.20 to 70. Regular monitoring helps to identify trends in animal population. Monitoring using rigorous scientific methods with yield unbiased information on status of tiger and prey in tiger reserve. Timely re-medical measures can be taken if down word trend is observed. Results of proactive management actions can also be assessed by changes in animal population. Tiger and large carnivore monitoring is carried out by scat encounter rate survey.

Objectives

To strengthen Conservation of Tiger and its prey animals by generating information on their status.

1. Build local capacity in scientific monitoring.
2. To gain scientific knowledge by analysis of information generated through project.

Brief description of some of the ongoing projects

Study of Art and Culture of Tribal belt in Central India

Culture is the complex whole which includes knowledge, belief art, Moral laws, Customs and other capabilities acquired by man as a member of society. Culture consists of abstract pattern of and for living and dying. Their Handicraft and Artifact are out of bamboo and bell metal.

The Gonds have intermarried and bred with Rajputs, Muslims, and Marathas and characteristically are more modern.

Tourism is likely to play major role in tribal tracts and will either uphold or destroy their culture. A study of tribal belt becomes very important.

Change is going to come whether the tribal themselves want the change or do we want to keep them as Museum pieces for tourists to the question.

Survey of Ecological Status of Jackal – PTR, Maharashtra

Jackal is included in part II of Schedule 2G of Wildlife (Protection) Act 1972. By Scientific study of Jackals on

1. Evolution pattern
2. Interspecies and interspecies behavior
3. Food availability
4. Prevalence of different parasitological disease.
5. Adoption strategy in Wild.

We will be able to identify the habitat of Jackal which is important for long term conservation.

Proximo Epidemics

Parasites can play a major role in evolution and ecology of Carnivores might be carriers of highest parasites loads of cell mammals. These parasites may have a profound influence on ecology, herbivore reproductive success of carnivores. Pench being unspoiled habitat and having rich bio-diversity of animals, prey predator interaction and their dynamics may be studied here. It is important for conservation of important species like Tiger, Leopard, Wild dog, Jackal etc. parasites can alter the outcome of inter specific dynamics.

Objectives Competition and Predator-Prey

1. Investigate the life cycle of parasites (domestic & wild hosts) and identify their immediate host.
2. Study the quantitative pattern in geographic distribution of parasites and immediate hosts.
3. Defect the possible association with the ecology and behavior of host individual.

Species free of predation like large carnivore, large herbivores or special with anti Predator mechanism a Porcupine and Wild Ass have higher parasite load. Prey species such as Deer, Antelopes and Gaur have low prevalence and intensity of infection. Attention may be paid to sudden outburst of epidemics than to any of the endemic parasites of low to moderate virulence.

Current Ongoing Projects

It is necessary to systematize the process of regulation of research proposals by researchers and permit holders, in view to ensure minimum disturbance to the natural environment and wildlife

Some of the important ongoing research projects are as follows:

1. Vulture monitoring program
2. Dietary preference of three sympatric large carnivore species.
3. Survey of critically endangered Owlets in Maharashtra by Dr. Prachi Mehta and Mr. Dharamraj patil on behalf of Envirosearch.
4. Study of art and culture of Tribal Belt in Central India by Miss. Anuradha Paul.
5. Survey of the Ecological status of Jackal in PAs in Maharashtra by Shri Bahar Bawiskar.
6. Proximo Epidemics Projection of the faecally dispersed parasites of Pench National Park using GIS Digital Elevation Model by Dr. S. Mallapur , Rahul Marathe and Vikram Hoshing , Naik Environment Research Institute LTD., Pune.
7. To carry out field work and collection of samples of teak from naturally grown teak in Pench Tiger Reserve for Genetic Diversity and Conservation of Teak from by Dr. R. Gnanaharan , Kerela Forest Research Institute ,Peechi.
8. An inventory of Spider Fauna in Maharashtra by Dr. Sanjay Molur.
9. To conduct study, observation, scientific expedition and update of checklist of common Dragonflies from Pench Tiger Reserve by Dr. R.J.Andrew, Hishlop college, Nagpur
10. Biodiversity characterization at landscape level using satellite remote sensing by S.K.Srivastava , Centre for development of Advance computing.
11. Understanding the patterns and drivers of land cover change in Pench Tiger Reserve, Maharshttra by Miss. Pinki Mondal , University of Florida, USA

4.6 Relocation of Villages

There is only one village by name Fulzari inside the Core Zone Area. Relocation Plan of the Fulzari village has been prepared and submitted to Govt. of Maharashtra. Govt. of Maharashtra has submitted the proposals to Govt. of India for approval. Approval of Govt. of India is awaited and relocation will be carried out after approval. Relocation plan in the background of revised guidelines and definition of families is being prepared. At present 118 families have been identified and the villagers have selected area for rehabilitation in Ramtek range.

4.7 Administration and Organization

At present there is one post of Chief Conservator of Forests & Field Director, Pench Tiger Reserve, Nagpur. One Divisional Forest Officer for Pench National Park and Mansinghdeo Wildlife Sanctuary. One A.C.F. Antipoaching and one R.F.O. Antipoaching Five R.F.O's assist the field director in field works. 2 in Pench national park and 3 in Mansinghdeo Sanctuary There are 49 post of Beat Guards and 11 posts of Forester to execute the field works. In Ministerial staff there is one Office Superintendent one Head Clerk, 4 Accountant, 11 Clerks, One Steno-Typists and other Staff to carry out the office work. Besides there are special duty Forest Guard and special Tiger Protection Force(STPF) comprising of 1 ACF, 3 Range Forest Officers, 81 Forest Guards and 27 Forest watchers.

Additional post of One ACF is being proposed for the reorganization of the Pench Tiger Reserve. Like wise one post of RFO for Ecotourism and one for Eco development is also being proposed for efficient working of the Tiger reserve.

5.1 Land use Classification

Pench National Park is situated in interior most part of Nagpur Division and it touches the state boundary of Maharashtra and Madhya Pradesh on North Side. Cultivators are mostly small cultivators which are dependent on rainfall pattern for their livelihood and agriculture. There are about 48 villages within a periphery of 10 kms. from the boundary of Pench National Park. Abandoned quarries sites are called "Dumps" have transformed into water bodies which have been used by wild animals for drinking water. In few Dumps Crocodiles have also colonized the Dump, hatchlings have also been observed indicating that nesting is also occurring it is necessary to provide approach to wild animals in the Dumps and natural regeneration has developed in the area.

Pench National Park, Madhya Pradesh touches the Pench National Park, Maharashtra on its Northern Side. There is no big industry in the vicinity of Pench National Park. Manganise ore industry is near Mansar & Ramtek which is 25 k.m. away from National Park. However tourism industry is picking up due to religious tourism at Ramtek and wildlife tourism in Pench Tiger Reserve in Maharashtra and Madhya Pradesh. There is much opportunity for the villagers in the vicinity of Pench National Park, Maharashtra to improve their livelihood due to tourism in the Park.

5.2 Socio-economic Profile of Villages

The population settled in the surrounding villages is mostly tribal and the area falling within Ramtek and Parseoni Taluka has been classified by the Revenue department. They are mostly Gonds and a small percentage of it on the M.P. side is Korku. A very small proportion of non tribal population has got intermixed with the local populace which is mostly in the form of traders and contractors etc.

Occupation The chief occupation of the people is agriculture which is mostly rainfed and primitive in character. Village wise land holding (Appendix) Though average land holding is 4 to 5 acres. Agricultural crops which are mainly cultivated are Wheat, Jawar, Gram, Cotton, Tuvar etc. The villages located along the West Pench range mainly rely on cultivating good quality wheat owing to flatter terrain. in the kharip seasons Cotton, Soyabin are also cultivated. They also cultivate cash crops such as on small scale turmeric, garlic; ginger etc. paddy is also cultivated to a smaller extent where ever traditionally paddy was cultivated. Where irrigation facilities are available two crops are cultivated maintained in summer people go for MFP collection migrate as labour in brick kiln etc.

The cattle population in these villages is quite significant. It chiefly constitutes bullocks and cows to a larger proportion along with goats, whereas, buffalo's are in a relatively smaller number. These scrub cattle viz. cows and bullocks, are not much used in the agricultural operations or as milk cattle but are kept as assets for easy liquidity in hard times. Buffalo's are mainly kept for dairy purposes. The cattle graze in forest areas. During the rainy seasons cattle tend to graze in the forest area as agriculture land is occupied by crops. Some villages employ cowherds. After the crop seasons the cattle are left unattended.

Much of employment opportunities are not available in these areas except for the agricultural works, fishing in reservoir area, outside the Park, collection of minor forest produce like tendu, gum, mahua, lac and fuel wood, etc. in surrounding area outside the Park. Skilled workers, such as masons, carpenters are engaged on construction works undertaken by Irrigation department, Forest department, Zillah parishad etc. People are engaged in soil and moisture conservation works which are regularly taken by the soil conservation department on agricultural land. Wells are also being dug up under various developmental schemes under block level. Thus a considerable proportion of population shows significant dependence on the forests either directly or indirectly.

Other activities - Though mining of manganese, ferroalloy and coal goes on in full swing at a distance away from the Park, no mining operation or industrial development which is detrimental to the conservation efforts is in existence in the vicinity of the Pench Tiger Reserve at present but it is a future threat as these activities often extend in areas. As per section 38 O (g) powers and functions of Tiger Conservation Authority, will ensure that the tiger reserves and areas linking one protected area or tiger reserve with another protected area or tiger reserve are not diverted for ecologically unsustainable uses, except in public interest and with the approval of the National Board for Wildlife and on the advice of the Tiger Conservation Authority.

5.3 Resource Dependence of Villages

Chief occupation of people is agriculture; hence people are dependant for small-wood Timber for their agricultures improvement and other livelihood options. The cattle population in these villages is quite significant. It chiefly constitutes bulk and cows along with goats and buffalos. At least people of Fulzari village and other villages in close vicinity of the National Park are dependent on National Park for grazing and other minor forest produce.

5.4 Human-Wildlife Conflicts

The conflict between man and animal is frequent, mainly with respect to human property such as agricultural crop in and around the Pench Tiger Reserve however very few cases of cattle lifting by Tiger or Panther are reported. However, there are no reports of attack by Tiger, Panther or Sloth Bear on human being inside the National Park.

Damage to agricultural crops of Fulzari and adjoining villages is common. The crop raiding is done by Nilgai, Sambar, Wild boars, Chital etc. However, there is no record of assessment of damage. In Pench Tiger Reserve area claims for crop damage are handled by the Territorial wing (Data of crop damage Appendix-LXV(Buffer) The villagers remain vigilant in night and wee hours to scare away the crop raiders. They employ a number of crude methods of making noise to scare the animals away.

5.5 Assessments of Inputs of Line Agencies/ Other Departments

Forest in the vicinity is under the control of Conservator of Forests, Nagpur Division, Nagpur and Divisional Manager, Nagpur Project Division of F.D.C.M. Ltd. In day to day life, these two agencies come in contact regularly. with the villagers and provide employment in forestry works that are carried out in the vicinity of their villages. The Agriculturist or Farmers in the nearby villages are afraid whether they will be expelled from the villages. Some Local Leaders take advantage of their mentality and make them agitate against the Park Management. A Mansinghdeo Sangharsh Samiti has been formed and have given application to denotify Mansinghdeo Wildlife Sanctuary.

Police Department, Zillah parishad Schools and NGO's are the other agencies along with the above mentioned three main lines agencies. All the above agencies concerning with people operate in the villages and Forest Department and F.D.C.M. operating in respective forest areas.

Part B - The Proposed Management
CHAPTER VI - Vision, Goals, Objectives and Problems

6.1 Vision

To ensure/ maintain a viable population of tiger in Pench Landscape.

6.2 Management Goals

To ensure the maintenance of a viable population of breeding tigers in the Pench Tiger Reserve.

To improve the prey base for large carnivorous by managing the Habitat.

To reduce the dependence of the people on the Pench Tiger Reserve.

6.3 Management Objectives

- 1) Rehabilitation of the Fulzari village and ensuring minimal human impact in core .
- 2) Ensuring the optimal prey productivity through protection of the area.
- 3) Preventing the depression of tiger density through poaching. Development of the infrastructure for protection, management and no go areas for development of any other sort.
- 4) Regulation of tourism as per NTCA guidelines.
- 5) To maintain the Tiger density in conformity with the prey base presently existing and scope to increase the prey base.
- 6) Ensuring optimal prey productivity through Protection of the area.
- 7) Habitats improvement using the present carrying capacity for tiger..

6.4 Problems In Achieving Objectives:-

1. Reluctance of Fulzari villagers for relocation.
 2. Fulzari village, Madhya Pradesh Electricity Board unit and irrigation colony within the National Park the villagers of Fulzari and employees of MPEB commute to and fro in the area which creates disturbance.
 3. Due to lack of advanced technological equipments it is difficult to track poaching activity. Illegal fishing activity in Pench reservoir is one of the threat to the aquatic biodiversity of the area, inadequate and untrained Staff is also weakness implementing the new advance technology for protection. At present average beat size of forest guard is 10.28 sq.km. which is quite large.
- 6.5 Lack of enough dedicated staff for eco-tourism and eco-development activities.

6.6 Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis –

STRENGTHS

- The strength of Pench Tiger Reserve lies in its contiguity with the Pench Tiger Reserve, Madhya Pradesh. There is only one village inside the tiger reserve and hence biotic pressure on reserve is limited.
- Pench river along with Totladoh reservoir and lower Pench provides a good source of water for healthy growth of prey base.
- **Famous Area also known as Mogali land Which Can Help To Attract Foreign Tourist And Provide Employment Through Eco-Torism To local youth and even to Fishermen**

WEAKNESSES

- There are 48 villages within ten kilometer from the boarder of PTR. These villages have some direct or indirect influence on the PTR. Given in Appendix-XXVIII
- Average beat sizes of 10 sq.km. in PTR create problems in effective protection and management.
- Cadre Management of Field staff is not with the PTR. The wildlife management is different from general forest management. Wildlife staff needs a different attitude and skill. The field staff posted in the PTR learns the skills and by the times they pick up the skill they are transferred out. The newly recruited/posted staff has to be groomed again.

OPPORTUNITIES

- The shifting of village and Totladoh Irrigation Department colony outside will create inviolate space for wild animals and the village sites will form meadows. This will increase the prey base and also provide the habitat required by the tigers.
- The vacant quarters of the irrigation department at Totladoh can be used for the protection purposes by housing the staff of STPF.
- The increased tourism in buffer area will give more employment to adjoining villages in the form of tourist guides, gypsy owners, employees in tourist resorts and so on.

THREATS

- As there are no clear land use policies, a number of resorts are likely to come up around Pench Tiger Reserve causing disturbance to wild animals. There is private land adjoining and within the tiger reserve who transactions are carried out without knowledge of wildlife wing or forest department also non agriculture conversion are done through revenue department. The Eco-tourism plan has included these aspects.
- Fishing in Totladoh reservoir is a big threat in the PTR because fishing is a lucrative business and catching & transporting fish, employ's locals and high profit is earned by the traders. This has taken the form of Mafia.
- Presence of National high way (NH 7) near the PTR cutting the corridor for the free movement of tigers , may be a great threat for the dispersal of Tiger population. There is continuous forest on either sides of the highway. The National Highway is being upgraded to four lane and lot of vehicles ply on this road in future. Unless suitable provisions of under passes are made at proper locations the highway will be a barrier to free animal movement and dispersal of surplus tigers.
- Damage from fire is a big threat in PTR. Since the area is basically dry deciduous forest the ground vegetation dries up and also leaf fall increases combustible material on the ground. The high summer temperature make set difficult to control in case of outbreak of fire.

MEASURES

- Higher degrees of protection should be achieved by increasing staff for protection, establishing control over illegal entry, increased surveillance in vulnerable areas like water holes feeding areas dens etc.
- Special measures for meadow development should be taken by eradicating lantana / weeds in infested areas.
- Planting of fruit trees should be encouraged like Jamun (*Syzium cumini*) Mango (*Mangifera indica*) along water courses and Ber (*Zizyphus mauritana*) in grasslands.
- The staff in wildlife wing should be regularly trained in the use of latest technology like GPS, tranquilising techniques, flying UAVs , camera traps etc in the wildlife conservation and also train and refresh the field staff in basic principles of wildlife management by establishing a training school at Sillari, exclusively for the field staff of pench tiger reserve, which can be managed through the Pench tiger conservation foundation.

Chapter VII - Management Strategies

7.1 Delineation of Critical Tiger Habitats and Inviolate Areas

Core Zone has been delineated as Critical Tiger Habitat as under Wildlife Protection Act 38 V (i) and except Buffer area vide section 38 V (ii) consisting of peripheral area as also been delineated. Both the Restoration Zones are part of Core Zone. The Restoration Zone is 95 ha. of land of Fulzari village, the total Core Zone area includes 90 Compartments of R.F. and one Compartment of P.F. extending over an area of 257.26 sq.km.

7.2 Zone and Theme Approaches to Management Strategies

7.2.1 Zone Plan

- 1) Zone plan for inviolate area
- 2) Zone Plan for restoration
- 3) Zone Plan for Tourism
- 4) Zone Plan for retrofitting measures

1) Zone plan for inviolate area

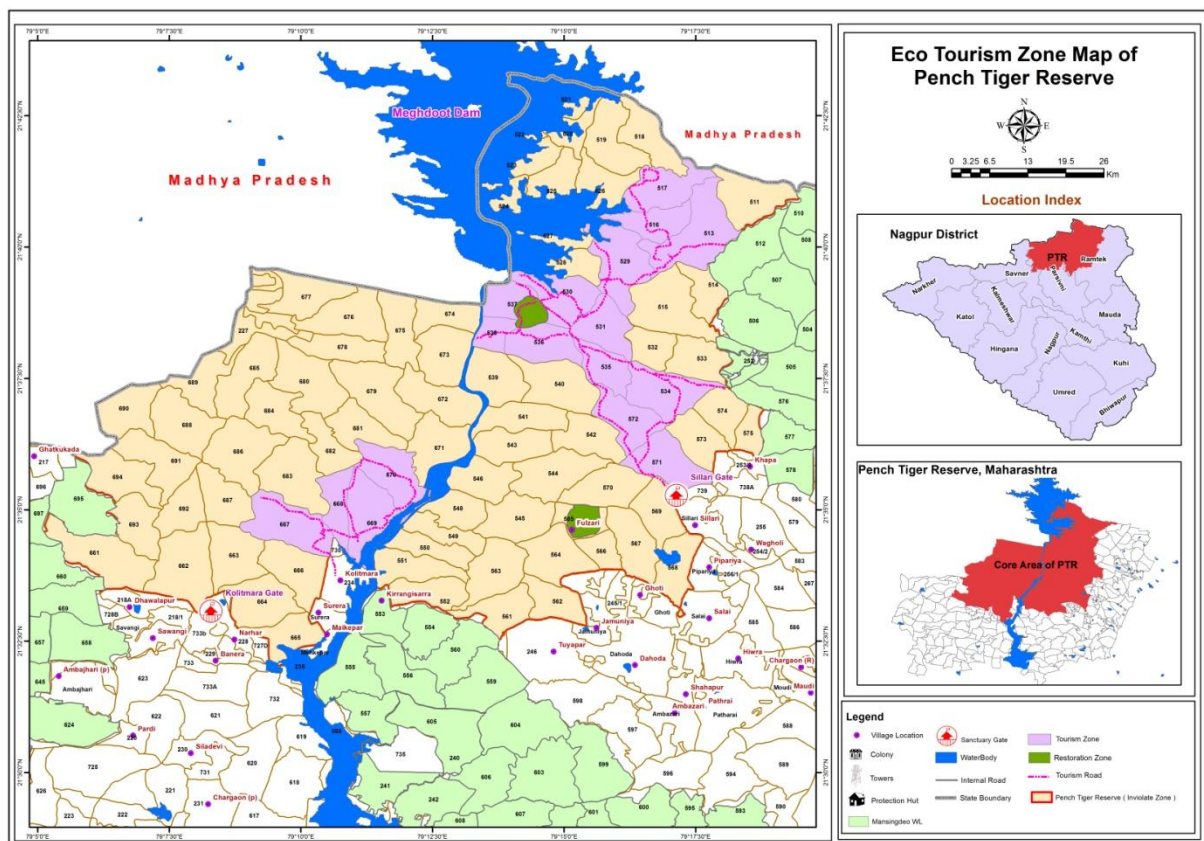
The inviolate area comprises of 90 compartments of Forest and One compartment of P.F. and extends over an area of 257.26 sq.km. The entire area of Core Zone is divided into two Ranges, four rounds and 25 beats. The above mentioned 257.26 sq.km. of area is kept untouched from any external disturbance. Only minimum essential habitat management works and water source development works will be carried out in this area. These areas will be totally protected and left for wildlife. Co-ordination with other Govt. department working in core and Buffer zone of Pench Tiger Reserve is essential for better protection

2) Zone Plan for restoration

Proposals for relocation of Fulzari village have been prepared and submitted to Govt. of Maharashtra. The project authority is Conservator of Forests, Nagpur Division, Nagpur. Govt. of Maharashtra has submitted the proposal to Govt. of India under Forest Conservation Act. 1980 for use of forest land for Rehabilitation of Fulzari Village in Mauza Khidki in Ramtek Tehsil. After relocation of Fulzari village the area of 95 hectare will be vacant and meadow development works will be carried out in that area so that herbivores will have better fodder availability. Besides this soil and moisture conservation works also will be carried out in the vacant area.

Cover is something which provides the wild animal with shelter. It can be dense growth, forest land, burrow, hollow, grassland, crevices etc. e.g. Porcupine needs cover in the shape of a burrow whereas Malabar pied hornbill or woodpecker prefers a hollow in a tree trunk. More so animals are in need of different types of cover at different times of their life. Such covers can be escape cover, ambush cover, breeding cover, thermal cover etc. e.g. Large low lying leaves of *Bauhinia vahli* act as good thermal and also breeding cover for Red Jungle Fowl whereas flat stretches of forest floor acts as escape cover for Nilgai. White back vulture colony is in existence adjoining the back waters of Meghdoot Dam of Pench Hydro Electric Project. Seasonal variation in location of nests has been noticed but preference is for areas adjoining the back waters. Fodder Cover will be provided to the wild animals by meadow development works in Restoration Zone.

From the diversity of the animals and birds that are seen in this area, it can be said on broad lines that cover requirement of life forms is adequately met with by the area and it does not act as a limiting factor. Pench Tiger Reserve is having good habitat which provides shelters for the wild animals. However there is need for grasslands and meadows to support and improve the Ungulate breeding in the diverse location in the Pench Tiger Reserve.



3 Zone Plan for Tourism

In order to meet the objective of making the visitors aware of the Park resources and its significance, some forest area of the Pench Tiger Reserve is opened for their entry and movement subject to certain regulations. Education about the nature and wildlife of the Pench Tiger Reserve and its beneficial impact on the environment of surrounding area would be given through recreation oriented interpretive planning.

Tourism zone is carved out of the Park area wherein tourist movement on regulated basis would be permitted. Protection measures as have been proposed to be undertaken in core zone would also be taken in tourism zone, too. Adequate measures against problems arising out of tourist movement, vandalism, teasing would be taken.

In order to facilitate wildlife sightings, works under habitat improvement would be taken up after giving careful thought. Nature interpretation in the shape of nature trails, interpretive signs would be done.

Area of 20.83 sq. km. is indicated in East Pench Range for various tourism activities including the Camping site at Sillari and Kirangisarra with interpretation centre and exhibition centre for increasing awareness and interest in wildlife conservation. An interpretation centre has been developed at Sillari, Ambakhori and Kolitmara for the visitors to educate them about the importance of Pench Tiger Reserve. Similarly, an area of 6.08 sq. km. is also indicated in West Pench Range for the establishment of camp sites and nature interpretation activities at Kolitmara and Ghatpendhari. All the facilities are outside the core area and as per guidelines of NTCA and Maharashtra State regarding Eco-tourism the facilities will be managed by local EDC.

4) Zone Plan for retrofitting measures

WII Dehradun has proposed mitigating measures for negating the adverse impact of the proposed four laning of National Highway 7. To this effect a technical report has been submitted by the NTCA-WII to the Government of Maharashtra and the Government of India (technical report no. 2015/006)

7.2.2 Theme Plans

Theme Plans strategy has been proposed for multiple habitats and concerns which are azonal in nature and are common to almost all the zones. The management strategies, which are common to most of the zones, have been given, as follows.

- i) **Theme Plan for Protection of the PTR**
- ii) **Theme Plan for Wildlife Health Surveillance**
- iii) **Theme Plan for Management of Avifauna**
- iv) **Theme Plan for Habitat Management**
- v) **Theme plan for management of special habitats**
- vi) **Theme plan for Management of avi-fauna**
- vii) **Theme Plan for Research and Monitoring**
- viii) **Theme Plan for Eco-development**

THEME PLAN FOR PROTECTION OF THE PTR

OBJECTIVES

The sole objective of this theme plan is to ensure effective protection of forests ecosystems of the along with it's diverse and rich biodiversity and wildlife and to minimize or neutralize the impact of adverse influences on the PTR areas through innovative measures.

Areas of Operation

The prescriptions of this Theme Plan would be applicable to the entire area of core zone as well as its interface areas.

Management Prescriptions

A) Protection in General

- i) HRD of frontline staff shall be undertaken through appropriate training on skill development of forestry manpower on the following areas.
 - ◆ Training on intelligence gathering by conducting training with the help of Intelligence institute at Pune managed by police department
 - ◆ Training in use of latest technical advances like GPS, tranquilising techniques, flying UAVs , camera traps etc in the wildlife conservation and also train and refresh the field staff in basic principles of wildlife management by establishing a training school at Sillari, exclusively for the field staff of pench tiger reserve, which can be managed through the Pench tiger conservation foundation.
 - ◆ Training on use and upkeep of weapons and ammunition, with the help of tiger cell established under Supd of Police in the district.
 - ◆ Exposures on legal and court procedures by frequent workshop with the legal experts .
 - ◆ Training on use of forensic science in crime investigation.
 - ◆ Co-operation of all Govt. departments working in Core and Buffer zone of Pench Tiger Reserve should be taken. Govt. of Maharashtra vide G.R. dated 22/12/2011 has included all line department concerning village development regarding implementation of beneficiary scheme in Eco-development villages.
- ii) Sensitivity and threat analysis of each Beat unit shall be carried out to determine gravity of protection problem in each beat and, accordingly, the hypersensitive, sensitive and normal beats would be identified and delineated on the PTR map.
- iii) Establish more Anti Poaching Camps (APCs)/ Wildlife Protection Squads at crucial vantage points in or around the PTR by pooling existing manpower resources. Each camp is proposed to have 3 or 4 persons, depending on gravity of the situation comprising the concerned Beat Guard, Beat helper/Fire watcher and one or two casual labors. It has been proposed to provide wireless handsets and weapons to these APCs for enabling them to deal effectively with organized poaching and other wildlife related crimes. Forest Guards will be deputed on rotations basis at the protection huts for specific period to avoid monotony and consequent reduction in efficiency.
- iv) Intelligence network would be established by involving informers from local villages. The secret service fund shall be kept at the disposal of CCF to provide reward to the informers for providing information of criminal network involved in poaching and their *modus operandi*.

- v) Institution of award is proposed for frontline field staff, Gram panchayat's and EDCs for rendering meritorious service in the field of wildlife protection.
- vi) Help of local villages would be sought for patrolling and other protection purposes through the EDCs and Gram panchayats and Gramsabha (Local body).
- vii) Help and co-operation would be sought from Police and other enforcement agencies for weapon training, intelligence gathering, investigation of wildlife crime, etc. through coordinated efforts and initiatives. During the post monsoon session.

B) Anti-Poaching Operations

Security plan to be prepared at range level by range forest officers which will be compiled at Field Director level. Poaching is an inherent activity indulged by locals related to areas having presence of wildlife. Traditional forms have evolved over a period of time influenced by local conditions, available infrastructure and skill. Poachers can be segregated into categories as under.

- i) Local Poacher for meat. A) Personal consumption b) Commercial Purpose
- ii) Out Station Poacher
- iii) Recreational Poacher
- iv) For all the three categories specific information needs to be compiled.
- v) Poaching methodology: Season, Site, target wild animal. Identity of Proficient individual. After compiling the above information Security Plan for the range can be prepared so as to effectively implement the same.
- vi) Hunting by Electrocutation:-This method is being commonly practice in villages in the surrounds adjoining cultivation wherever electric supply line is existing. Constant vigil and patrolling under the electric line is the only effective method. To facilitate this type of constant vigil and patrolling safe guards needs to be implemented.
- vii) Regular cutting of rank vegetation under the electric line up to a specific width of minimum 5 meters should be kept clear so that the patrolling staff can freely move safely under the electric line.
- viii) Electric line tripping information should be appraised by the Electricity Board Staff and given or taken by range forest officer every fort night so as to direct the patrolling squad in the areas where regular tripping is noticed.
- ix) Waterhole vigilance: - Patrolling and monitoring of waterholes by the frontline staff on regular basis should commence from February till on set of monsoon. Paths leading to such waterhole should also be examined as these are points for laying traps.
- x) External Vigilance: - Weekly market in the vicinity of wildlife habitats are important meeting points and disposal points for wildlife article and meat etc. Hence, deployment of staff that is not known to the locals is necessary so that they can pose as probable buyers and gather information for further action.
- xi) Nearest railheads and bus stops where long distance trains, bus stop also need to be included in the vigil for getting information. Carrying out naka bandi on important roads passing adjoining the wildlife habitat or leading from the wildlife habitat is also essential.
- xii) Developing network of informers in the adjoining villages especially Pan shop owner, Hair dressing owner, tea shop/restaurant owner, they can be a important source of information about outsiders visiting the area.
- xiii) Preparing specific protection module training programs for frontline staff for carrying out above activities and imparting training at regular interval for capacity building.

C) PRESCRIPTIONS FOR BOUNDARY DEMARCATION

- ◆ The external boundaries have been permanently demarcated by distinct marks and should be maintained periodically. The activity shall be carried out on top priority to ensure consolidation and integrity of forest areas under the Pench Tiger Reserve.
- ◆ The external boundary should be cleared annually. The internal boundary should be cleared at every three years interval.
- ◆ **The Five-Year Boundary Demarcation Scheme:** The Five-Year's boundary demarcation scheme would be, as follows.

Table 7.1

Sr. No	Range Name & No. of Pillars	Length of External boundary (Km)	Year-wise Plan of 1/5 Boundary Demarcation (No. of Pillars)				
			I	II	III	IV	V
1.	East Pench Range – 931	46.50	1-186	561-746	187-373	747-931	374-560

2.	West Pench Range – 831	41.50	1-166	488-664	167-332	665-831	333-498
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D) PRESCRIPTIONS FOR CHECK POSTS/ CHECKNAKAS

- i) In view to ensure effective protection of the PTR areas, all the entry points have been prescribed for strict regulation of entry of visitors.
- ii) The Check posts/ Checknaka with barriers would be established on the defined entry point sites on the identified roads, as follows for regulation of entry.

- ◆ At Sillari - Paoni-Totladoh Road
- ◆ At Khapa - Deolapar - Pipariya Road.
- ◆ At Khursapar - Pivarthadi- Manegaon tek Road
- ◆ At Ghoti - Paoni-Sillari and Chorbahuli-Sillari Road
- ◆ At Dhawlapur - Dhawlapur-Kolitmara Road and Dhawlapur-Ghatpendhari Road.

Out of these Sillari gate is strengthened with Iron Gate, at other points gates will be constructed. The existing Checknaka would be strengthened with barriers and new check posts.

- iii) All Checknaka would be provided with wireless handsets, other necessary equipments and furniture facilities to improve their efficiency.

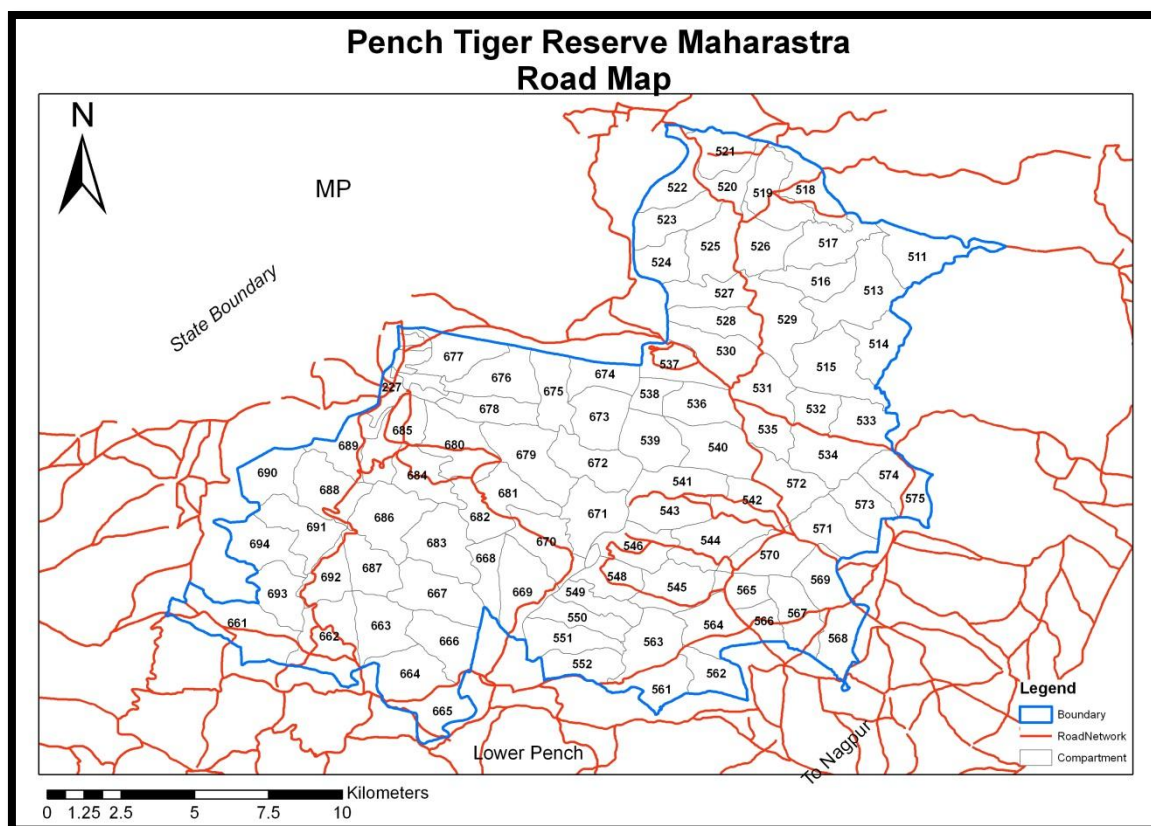
E) PRESCRIPTIONS FOR COMMUNICATION SYSTEM

Roads and Culverts

In view of the size of the PTR, the existing road network is adequate to serve the desired protection purpose. It, however, needs upgradation, strengthening and maintenance to make it suitable for regular patrolling for protection point of view. In addition, these roads also serve as the permanent Fire lines to help check the spread of any contingent fire in the forest areas. Detailed descriptions of roads and quantum of work involved thereto has been estimated, as follows.

D) Maintenance of Roads:

The total length of the existing roads of both the mettle and Murrum constitution under the PTR management is about 18 km metal road and 143 k.m. of Murrum road. It has been prescribed to maintain these roads on annual basis to ensure effective patrolling by the field staff as well as to maintain the communication links between various sites, places and villages within and in vicinity of the PTR. To this end, properly dressed spread of a uniform layer of murrum to the extent of 15 cm is prescribed along with maintenance of culverts and causeways, where necessary. It is also prescribed to have mandatory side drain along the hilly portions of the existing roads to facilitate safe flow of rainwater without damaging the road network. The estimation of the funds requirements for the purpose is given as in the **Appendix No. LXII**.



Map 4: Road in PTR

ii) Construction of Culverts and Causeways:

Construction of Culverts, Irish bridges, Causeways, etc is essential to ensure all weather mobility for protection point of view. These structures have been proposed to be so designed to suit the site requirements, width of the roads and also would serve the role of waterholes, in addition.

F) WIRELESS SYSTEM

- I. In view of its significance in protection of the forests and the wildlife, this facility is essential and hence proposed to upgrade this existing out dated system in the initial 3 years period.
- II. The Base stations would be established at identified sites, namely, the Totladoh, Salama, Piwarthadi, Khursapar, Khapa, Pipariya, Paoni Gate, Ghoti, Kolutmara, Narhar & Ghatpendhari Procurement of necessary instruments and equipment's for the purpose has been done. The detailed proposal is given in the

Appendix No XVIII

G) ESTABLISHMENT OF FOREST STATIONS (APCs)

In order to have effective protection it is proposed to set up 8 number of Forest Stations (camp sites for Anti-poaching/Protection Squads) covering the vulnerable areas of the PTR. These stations would be under the charge of respective Beat Guards and will be assisted by 3-4 wage workers. They will be stationed permanently inside the PTR and will patrol the area assigned to them. The duties of these 'Anti-poaching/Protection Squads' would be to patrol the area round the clock, to control illicit cutting, grazing, poaching, fire incidences, submit daily reports to forester concerned, issue PORs, etc. and also to collect the secret information about wildlife offenders and associated individuals operating in this area. Employing daily wage employees for protection hut duties should be specifically done through EDCs, so that the services of the employee need not be terminated every three months. This is very essential to maintain the motivational level of the employee and also for maintaining the continuity of the activity which will prove effective in the long run.

The names and locations of Forest Stations along with compartments assigned to each station are given in the **Table No. 7.2** as given below.

Table No. 7.2 The Forest Stations, their locations and areas assigned

S. N.	Name and Location of the Forest Stations	Comptt. Included Therein	S. N.	Name and Location of the Forest Stations	Comptt. Included therein
1.	<u>East Pench</u> Bodalzira - 522	519 to 522	1	<u>West Pench</u> Bodkimatha – 675	674, 675
2.	Salama Campus – 535	535 to 540	2	Junapani – 677	676, 677, 227PF
3.	Tuyapar - 562	561 to 564 & 566 to 568	3	Datizira- 673	671 to 673, 679, 681
4	Bakhari – 574	532 to 534 574, 575	4	Hattigota – 680	678, 680, 684, 685
5.	Hattigota - 543	541 to 544 & 565, 570	5	Rohdeo – 662	661 to 667, 683, 687, 692
6.	Fefdikund – 542	569, 571 to 573	6	Amti – 694	691, 693, 694
7.	Saddle Dam – 517	523 to 526	7	Karodoh – 689	686, 688 to 690
8.	Piwarthadi – 518	511, 513, 517, 518	8	Kolitmara Campus	668 to 670, 682
9.	Bhivsen Kuti – 515	514 to 516, 527 to 531			
10	Mama Tower -	545 to 552			
	Total - 10 Camps			Total - 8 Camps	

However depending on threat perception more number of Forest station can be established at various locations. As per seasonal conditions animals movements are concentrated in specific areas therefore make shift camp also be established in such areas to prevent occurrence of poaching incidents for such activities tents have been procured which will be used by the STPF staff as and when required. Perment structures become unused after the area is not frequented for illegal activites.

H) MANAGEMENT PRESCRIPTIONS FOR FIRE PROTECTION

The forest fires along-with unregulated grazing have been acknowledged as the main causes of degradations of forest eco-systems and wildlife habitat. It directly affects the fodder availability and also kills the helpless wild animals especially the micro-fauna, reptiles, etc. It also exposes the soil to erosion and, hence, causes habitat degradation in the process. Due to deciduous nature of the forests, the grasses, weeds and falling leaves and twigs forms a thick layer of undergrowth which is highly inflammable in nature. The availability of water also becomes scarce during summers causing further hardships in its timely check and control. Normally, the period from 15th February to 15th June (till the on-set of monsoons) is observed as the fire season, every year. Because the area is basically dry deciduous forest and there is lot of combustible material on the ground which can get ignited rapidly.

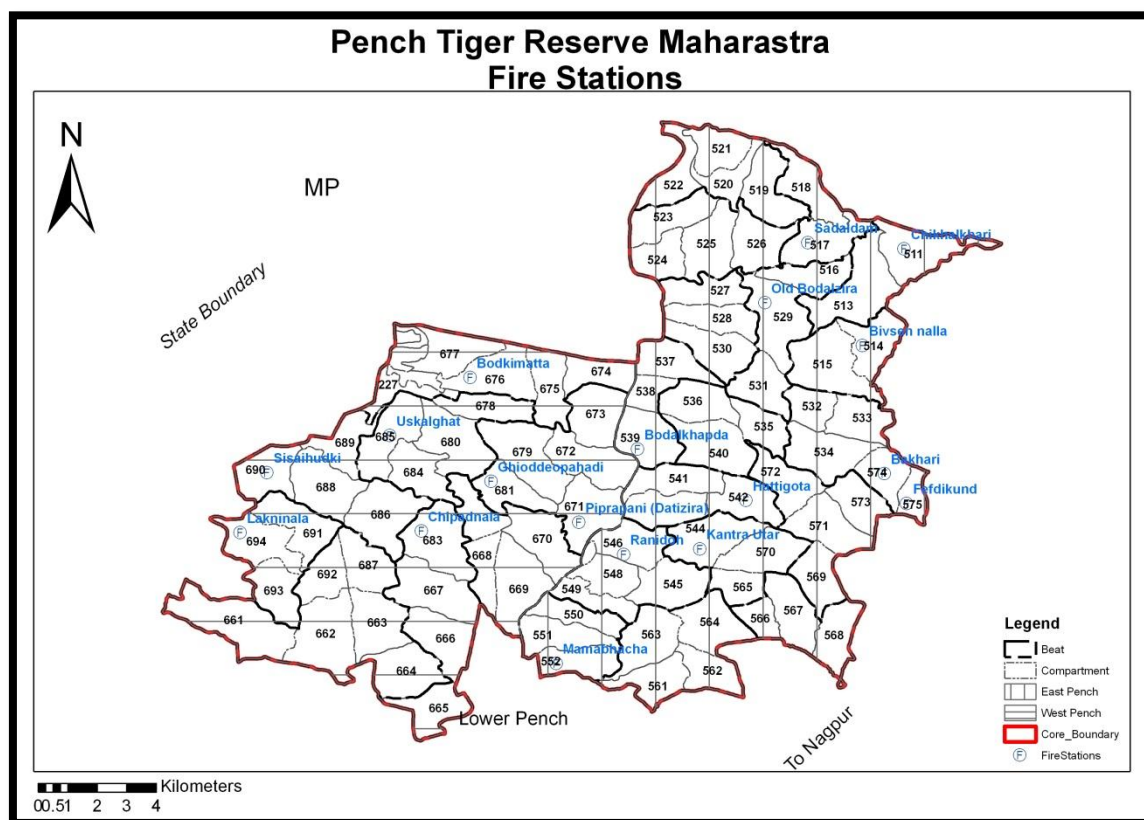
i) **Maintenance of Firelines:** In view to ensure effective checks on the spread of accidental fires, Fire lines have been identified and established in the PTR areas. These Fire lines has been classified into, the following, categories in order of priority.

- a) **A -Class Fire lines:** These Fire lines comprise of the external boundary of the PTR. Its total length is 88 **k.m** and the prescribed width is 12 Meters. These are the prominent Fire lines, which have been prescribed for clearing, burning and maintenance every year on priority basis.
- b) **B -Class Fire lines:** These Fire lines includes internal boundaries and roads within the PTR areas. These Fire lines help localize the fires in areas of its origin. These lines extend to 203.50 **k.m** in length and the prescribed width is 12 meters. In case of roads 6 Meters along both sides. These Fire lines have also been prescribed clearing, burning and maintenance, every year.
- c) **C -Class Fire lines:** It includes the remaining Fire lines including the internal boundaries of compartments and coupe lines. Its length is 40 **k.m** and prescribed width is 6 Meters. These Fire lines have been prescribed for maintenance on the basis of situational necessity and the availability of funds.

These Fire lines have been prescribed for clearing and burning well before the onset of fire season viz. before the 15th February every year. No Fire lines have been prescribed for burning after the onset of fire-season.

ii) **MAINTENANCE OF FIRE SQUADS:** In order to ensure early detection and early control it is proposed to establish Fire Squads at strategic points for the period of fire season to detect, locate and control the fires in time so that fires would not spread to larger areas. All the eight Anti-poaching/Protection Squads, proposed under para 7.2.2 (E), have been prescribed to act as the Fire Squads during the fire season. In addition, it is proposed to establish 'Fire Squads' at Fefdikund, Ranidoh, Hattigota, Mamabhacha pahadi, Chikhalkhari,

Bhivsen, Old Bodalzira, Bakhari, Bodalkhapda, Saddle Dam, Bodkimatta, Uskalghat, Goddev pahadi, Chipadnala, Piparapani, Sisaihudki, Kakninala etc villages for the purpose of protection of these areas from forest fires. These Fire Squads would be provided training exposures in fire control techniques as well as use of fire fighting equipment's and tools. Fire Squads would also be provided necessary fire fighting tools, equipment and means of transport to be effective in the arduous operations of fire fighting in the forest areas.



Map 5: Fire Stations in PTR

I) PROCUREMENT OF VEHICLES FOR MOBILITY OF THE STAFF

- i) In order to have effective control over illicit cutting, grazing, fire incidences poaching and other wildlife related crimes, there are 2 jeeps at the disposal of 2 Range Officers and it is proposed to procure more Jeeps with GPRS and Motor Cycles for Protection Squads and the field staff to improve their mobility and effectiveness.
- ii) There is already one Tractor at Pipariya. It is also proposed to procure one more tractor along with a water tanker and trolley to supply water at waterholes during the scarcity period.
- iii) Two jeeps have been hired under Tiger Protection Force and they are used for patrolling by the protection squad under the scheme of Tiger Protection Force.
- iv) There are four boats at present they are sufficient for patrolling but when large group of fishermen enter for fishing they are insufficient. It is felt to carry out under water operation and remove all the boats that used by fishermen and are hidden under water which will be detrimental for fishing. This operation will have to be done simultaneously in Madhya Pradesh and Maharashtra area. Nearly 150 to 200 boats are in operation as per rough estimate.

These vehicles will be prescribed for procurement during the first year of the plan period. The amount required for the purpose has been given in the **Appendix No. LXII**.

J) PROVISION FOR PROCUREMENT OF ARMS AND WEAPONS

The Protection Squads have been prescribed to equip with the arms and ammunition to assist the field staff in tackling the criminal gangs and groups associated with the wildlife crime. At present there are One **Revolver** and Five **Rifles** at East Pench Range which are deposited in Police Station Deolapar and used as and when required while patrolling. Some more weapons are proposed to be procured and their associated accessories for field staff during the forth coming year of the plan period.

K) PROVISION FOR SECRET SERVICE FUND

The wildlife intelligence is crucial for detection and timely intervention to prevent the commission of wildlife crimes. In order to have reliable information on wildlife related crimes, a network of informers is essential to

seek information on the movements of criminals and associated persons. At present, there is one Antipoaching Unit RFO who is assisted by two Forest guards at Nagpur for protection in the PTR. As a consequence, reliable information for wildlife crime detection is forthcoming and effective protection of PTR is possible.

Secret Service Fund is kept in hands of Field Director, Pench Tiger Reserve and it is used for payment to the informers as and when required as per availability of fund. It is utilized as per requirement of division to seek and collect reliable information. The guidelines for the use of secret service fund and keeping its records under strict control should be framed. A specimen copy of the certificate to be issued by the concerned officer spending the secret service fund is given in Management Plan.

L) PROVISIONS FOR TRAINING OF FIELD STAFF IN CRIME DETECTION

The field staff is well conversant with the provisions of various Acts in vogue, like the Indian Forest Act, 1927, Wildlife (Protection) Act, 1972, Criminal Procedure Code, Indian Penal Code, etc. as well as investigation process and preparation of documents and other case papers. Regular trainings are conducted with the help of NGOs to give information about Acts to the new recruits and new staff coming on transfer. As a consequence, the conviction of wildlife crimes in the courts is satisfactory. It is thus proposed to give training exposures to the field staff in wildlife crime detection, investigation, forensic and matters related to court cases, on regular basis. Skilled, updated and well-equipped manpower is essential for timely and effective detection and investigation as well as for effective intervention in checking the commission of wildlife crimes. Training for field staff forest guard, Vanmajoor can be conducted in the post monsoon season at Sillari where facilities and infrastructure as tourism is yet to start.

In view to this, training exposures to the field staff on advanced areas of crime detection as well as theme-based issues such as wildlife intelligence gathering, forensic training, etc. would be provided. It is also prescribed to arrange field visits to the reputed National Parks and Sanctuaries of other states to bring home their experiences, especially, the success stories.

A detailed Tiger Security Plan is given in Appendix no. XLIV

7.2.3 THEME PLAN FOR WILDLIFE HEALTH SURVEILLANCE

1) General

The common diseases infecting the wild animals are the *Rinder pest, Canine distemper, Anthrax and Foot and Mouth disease*. Wildlife Health Surveillance on regular basis is an essential component of wildlife management, especially, for the isolated populations of the endangered species such as of this wildlife PTR. Local animal husbandry department can be involved with participation of Nagpur veterinary college students.

2) Objectives of Management

- i. Detect the disease causing pathogens in time and check the spread of infectious diseases in the PTR areas and its zone of influence.
- ii. Make people aware about the infectious diseases common to cattle populations and precautionary measures to check its spread to other cattle and wild animals. Local animal husbandry department can be involved with participation of Nagpur veterinary college students
- iii. Devise mechanism to ensure regular periodic surveillance of wild animal's health.

3) Management Prescriptions

- i) A post of Veterinary Doctor is there at Head quarters under Chief Conservator of Forests (Wildlife) Nagpur. He looks after the surveillance of Wild animals and postmortem in case of casualty in PTR area. A post of a veterinarian is prescribed in this office at the headquarters, which would prepare and execute the wildlife health program, comprising, components such as the health standards, information management and dissemination, render technical advice and coordination of resources. Period when the seasons changes is vital as out break of diseases is prevalent during the period from domestic animals hence the regular schedule of inoculation of domestic animals before such out break is necessary. A Bibliography of native and exotic diseases would be catalogued for purpose of reference, future planning and effective use to check spread of these diseases.
- ii) Seeking help and liaison with outside agencies such as NGOs, Zoos, and Agricultural Universities to facilitate wildlife health surveillance. Local animal husbandry department can be involved with participation of Nagpur veterinary college students
- iii) Water sources and habitats frequented by wild animals', especially, the ungulate species shall be kept free from domestic cattle.
- iv) Undertake annual vaccination of all the livestock populations, compulsorily, in buffer zone areas and the enclaved villages for common diseases such as the *Rinder pest, Foot and Mouth disease, Anthrax, Rabies,*

Canine distemper, etc. to prevent the spread of these diseases. Local animal husbandry department can be involved with participation of Nagpur veterinary college students

- v) A basic stock of requisite equipments, drugs, tranquilizers, sedatives, narcotics, anaesthetics, anti-dotes etc. shall be kept to deal with contingencies, in this regard. There are instructions to take help of Veterinary officials working in the local area in Primary Health Department for Vaccination and the urgencies.
- vi) Training of the field staff proposed so that they can know the symptoms of major diseases in wild animals and can take remedial measures in time.
- vii) The field staff shall be trained to enable them to collect samples of scats and excreta of wild animals as well as to provide first aid to wild animals, in case of accidents.

7.2.4 THEME PLAN FOR HABITAT MANAGEMENT

1) General

The need of adequate and quality food, water and shelter in undisturbed environment are the essential prerequisites for survival, growth and sustenance of wildlife populations in a given area. In order to make the wildlife habitat conducive and suitable to the key species of an area habitat management and manipulation measures have been acknowledged as the crucial components of the wildlife management. In view to this, by adopting suitable manipulative practices and measures, habitat diversity of PTR areas would be enhanced for the benefit of various species of the wildlife. The core area of Pench tiger reserve which is basically divided into two management units of ranges need to be divided in various zones within the management units for preparing zone plans to initiate better execution and monitoring. East Pench and west Pench range comprises of national park which was established in the year 1975

1. Habitat improvement activity

- a. Within the management units wherever habitat intervention are needed will be covered. Weed infested area will need to be tackled hence; such areas will be marked out as habitat improvement zones for vegetation and cover. Eradication of invasive weeds like parphenium, Hyptis and Lantana can be a important operation which should be done in a phased manner so as to minimize impact of the activity.
- b. Assessing old teak plantations and carrying out operations of thinning specifically retaining miscellaneous regeneration encountered during thinning in the plantations. Improving water regime by creating waterholes in water gap areas.
- c. Areas where interventions regarding water availability are identified; such areas will also be identified as water augmentation area which will come within the umbrella of habitat improvement zone. But, clear delineation of vegetation and cover augmenting area and water augmenting area is to be done so that activity can be properly focused on the objective.

All activities will be phased out in a manner so as to minimize impact of the activity.

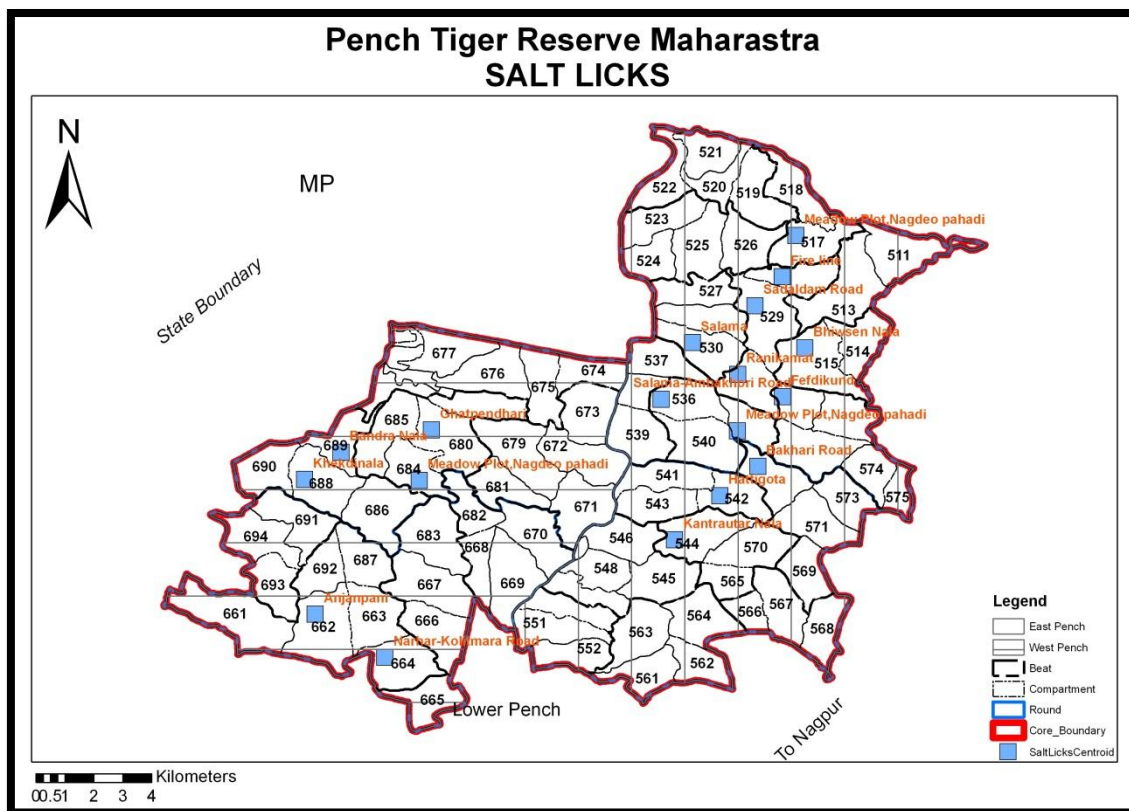
2) Extent of Areas

The provisions of this Theme Plan would be applicable to the entire areas of the PTR, including, the Core zone, Eco-tourism Zone and the Restoration zone areas.

3) Objectives

This Theme Plan would have the following, objectives to achieve in a wholesome manner.

- Ensure protection of natural flora and fauna of PTR, significant from bio-geographic, ecological and aesthetic point of view.
- To improve wildlife habitat by taking up ameliorative measures by augmenting the supply of food, fodder, shelter and water for the wildlife during the stress periods.
- Improve habitat conditions including the water regime through soil and moisture conservation measures and waterhole management.
- Protect and conserve the special habitats such as riparian zones, snags, down logs, saltlicks, wallows, dens, caves, edges and the aquatic habitats.

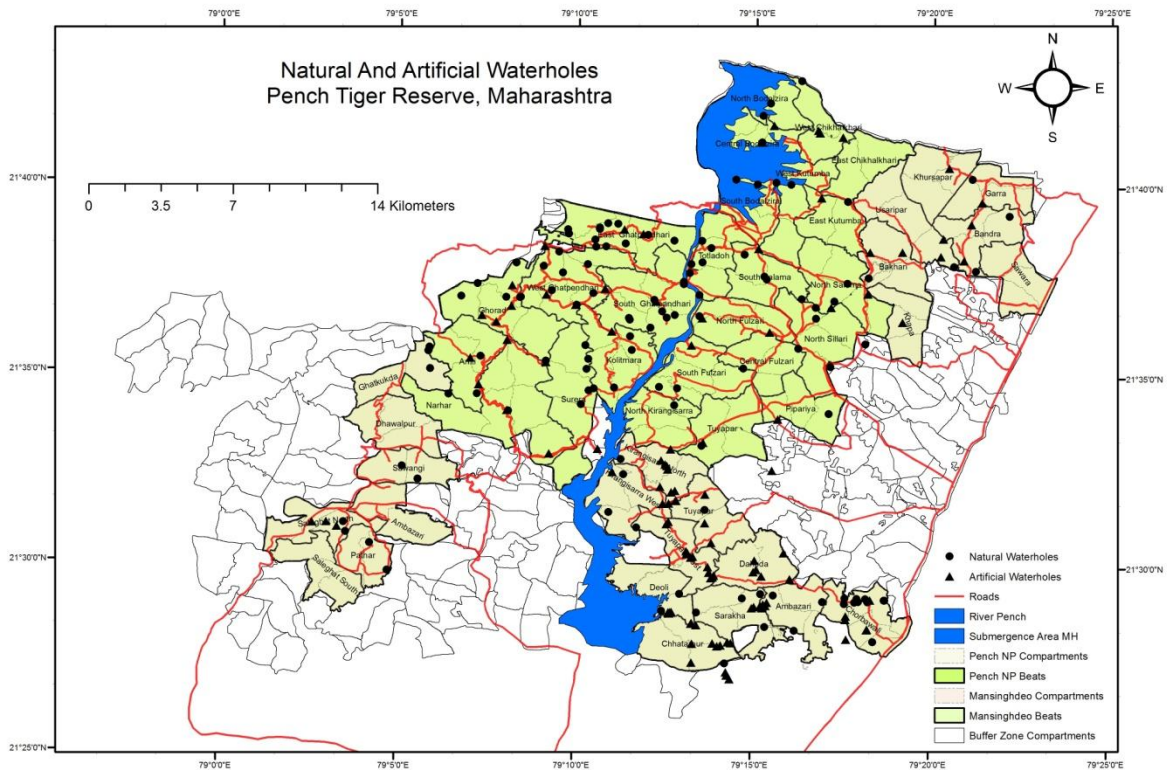


Map 6: Salt licks in PTR

4) Management Prescriptions

In accordance with these objectives, the following, habitat improvement activities have been prescribed for carrying out during the plan period. The detailed work plan and the amount required for the purpose is given in the **Appendix No. XLV**

i) Waterhole Development works: It is prescribed to undertake maintenance of the existing waterholes as well as development of new waterholes in water scarcity areas to augment and improve the water availability for the wildlife. The waterholes should be so designed to have the dimension, shape, size and slope easily accessible from all directions. They can be dug out ponds where water does not percolate with proper slope so that animals can approach. Construction of bore wells at appropriate identified places are being undertaken to provide drinking water to wild animals in periods of scarcity especially during the summers. It has been proposed to construct bigger waterholes by special estimate for the purpose.



Map 7: Waterholes in PTR

ii) **Soil and Moisture Conservation Works:** The following soil and moisture conservation works have been prescribed on watershed pattern. Series of bandharas such as the earthen bandharas, brushwood bandharas, inverted puddle dams, cement plugs, trenches, small forest tanks, etc. by taking the nallas, streams and the natural depressions as the natural units of treatment. Undertake Gully plugs, contour trenches, nallabunds, check dams, Gabian and other suitable SMC structures in the water scarcity areas. Prevention of grazing by domestic livestock can also help in reducing the compaction of Soil and consequent erosion. Plantations of native browse and fodder species along the banks of rivers and streams can prevent the erosion of bank. Desilting and renovation of old tanks and reservoirs in and around PTR areas can be useful in preventing the entry of cattle in the Pench Tiger Reserve in search of Water.

iii) **Meadow Development Works:** It is prescribed to undertake meadow development works at the suitable sites to make availability of adequate fodder for the ungulate populations within the PTR. Openings infested by lantana infection reduces the forage availability for herbivores need to be systematically eradicated at least in the flat terrain areas. Which will encourage growth of grass and forage

- a) There are suitable areas in the compartment No. 515, 516, 517, 531, 533 to 536, 543 unclassified forests, which shall be developed into meadows by planting suitable grass, fruits, fodder and browse species. The creation of such meadows will help fulfill biological needs/ psychological instincts of certain herbivore species such as the *Chital and Nilgai*. Because they are gregarious by nature and prefer grazing a specially Chittal and Nilgai prefer open areas even though they are browsers.
- b) The meadow areas must be suitably numbered and permanently demarcated by fire lines of 6 meters width. These areas shall be burned during the month of January- February under the supervision of the Gazetted officials, not below the rank of the Forest Ranger. The early burning activity will reduce the fire hazard and would provide green fodder for the herbivore populations.
- c) After control burning as prescribed, the unpalatable woody vegetation upto 60-cm Girth at the Breast Height (GBH) must be removed. Pollarding of fruit and fodder trees must be carried out to make the food available to browsing species, within their reach. Preparation of sunken beds for regeneration of better quality grass, eradication of *lantana* from the meadow area etc are the proposed works to be carried out in meadow area under meadow development. Lantana leaves are hairy and are said to damaged the alimentary cannal of the animal which egests the leaves of lantana.
- d) The blank spaces, if possible, would be ploughed or otherwise 'V' shape furrows should be taken and planted with local varieties of grasses by sowing of seeds or by tussock plantings. Seeds of leguminous plant species shall be sown to help fix nitrogen in the soil. Such meadow development activities should be

carried out on regular basis to check the spread of unpalatable grasses or vegetative growth in these meadows.

iv) **Weed Control Measures:** It is prescribed to undertake weed control measures preferably before the seeding of the various weed species in order to check their spread in the PTR areas. Immediately after monsoons when the weeds can be identified they can be easily uprooted and the other germinating vegetation will grow and cover the ground while the weeds will be eliminated.

v) It is prescribed to provide strict protection to the existing water bodies such as the Totladoh Reservoir and Navegaon-khairi reservoir lake and bed of Pench river in the adjoints of the PTR with a view to protect these special habitats significant for roosting and breeding of avi-fauna and waterfowls and other aquatic life forms.

vi) It is prescribed to prepare habitat maps/cover maps for the PTR and to update them at five-year interval. And also the compartment histories exhibiting the special habitats shall be written and updated every year.

7.2.5 THEME PLAN FOR MANAGEMENT OF SPECIAL HABITATS

1) General

The special habitats are function of plant communities and succession stages, which are primarily biological in nature and they can be created and/or altered by the management interventions. The main special habitats found in the PTR areas are, namely, the riparian zones, snags, dead and down woody material, edges, aquatic habitats, etc. The special habitat such as the aquatic habitats is dynamic and productive areas, which are often subjected to influence from natural and human factors. The aquatic habitats are located as eco-tones between dry terrestrial systems and permanently flooded aquatic systems such as rivers, lakes, estuaries, etc. There are over 100 waterholes, of which about 50 are perennial in nature. New waterholes are proposed to be developed during plan period. Attached Appendix-XX

2) Extent of Areas

The special habitats are primarily limited in extent of areas they occupy. They are, however, found interspersed in the entire PTR areas and, hence, they are the most fragile and vulnerable to the adverse influences and alterations.

3) Objectives

The prominent objectives of management of special habitats are given, as follows.

- Protect, conserve and maintain the special habitats in unimpaired pristine shape by suitable protective measures and management intervention.
- Focus endeavors to understand and determine ecological function of the special habitats in the PTR's Eco-system.
- Maintain gene pool of the aquatic plants and other natural communities.

To minimize impact of adverse influences on the special habitats.

Considering the vastness and diversity of the core area, a number of unique habitats have been identified to which many more can be added after detailed survey. In East Pench range unique habitats have been identified as under.

- a) Ambakhori:- is a typical riparian tract inhabitat by diverse flora(Oroxylon indicum) and fauna (MalabarPied Hornbill).
- b) Saddle Dam:- Typical gently sloping grassy tract with vegetation suitable for all ungulates. Five specie of critically endangered and endangered vultures are found in this area, making it one of the few last habitats of vultures in India. They are King Vulture , Egyptian vulture, Griffon vulture , long billed vulture, Indian white backed vulture White Backed Vulture nesting sites are also noticed in its vicinity.
- c) Bakahari:- A important point of animal movement towards reservoir area from the north-east fringes of the core area.
- d) Kutumba Nala:- An important water course draining north-west from the higher plateau adjoining the reservoir and is a known tiger natal area.
- e) Kantra Utaar:- Important drainage point with a rich catchment area known for wild animal presence.
- f) Lamandoh:- Important point for crossing from East to west pench across the Pench river on the downstream side of the reservoir.
- g) Fefrikund:- An unique geological formation of perennial waterhole surrounded by rich wildlife habitat.
- h) Venu Van:- Only large tract of bambusa arundinacea forests found in the core.

West Pench

- a) Hattigota to Saat Talav Tract:- It is a tract of flat terrain surrounded by gentle to steep slopes which is important for animal inhabitation.

- b) Datijhira:- This area also is covered by bambusa arundinacea and passes through the saddle which descends into lamandoh and a important track of animal movement.
- c) Gaoli Ghat:- It is adjoining the Pench river, a narrow and flat tract with perennial water of the back waters of lower Pench reservoir and one of the habitats of Spotted Deer in West Pench Range.

4) **Management Prescriptions**

The management prescriptions for the special habitats have been given, as follows.

- i) Special habitats shall be identified and demarcated across the PTR and proposed for periodic monitoring and documentation.
- ii) Encourage research studies for special habitats, by involving researchers from premier institutions such as the WII, Dehradun, BNHS, Mumbai, local Agricultural Universities, etc. Local NGO's and Honorary Wildlife Warden. And putting them on GIS map by taking GPS reading.
- iii) Natural waterholes are preferable to artificial ones, as they are located in natural setting and comparatively undisturbed environment.
- iv) Waterholes should be evenly spaced throughout the PTR, having at least one waterhole in every 4 sq.km. area. Feasibility study shall be carried out before undertaking any new waterhole.
- v) Waterholes and special habitats shall be protected, maintained and monitored at regular intervals against pollution and other adverse influences. Due to human activities which should be prohibited especially during pinch period.
- vi) Management intervention in riparian zones shall be undertaken after careful study and expert advice to avoid any adverse impact due to such intervention.
- vii) Grazing shall be strictly controlled in riparian zones to minimize the adverse impact.
- viii) Removal of debris from watercourses shall be carried out with caution as it serves as critical habitat for entry, exit, rest and reproduction for some species such as reptiles and amphibians.
- ix) Riverian zones of rivers systems serve as migration routes for birds, bats and deer populations, hence, shall be maintained disturbance free.
- x) Snags, dead and fallen trees and down woody shall not be disturbed unless they are hazardous to wildlife or hamper human mobility as they perform ecological function to support various species of mammals, birds, invertebrates, fungi, mosses and lichens.

7.2.6 **THEME PLAN FOR MANAGEMENT OF AVI-FAUNA**

1) **General**

The PTR is an abode of over 170 bird species belonging to 50 families of both the resident white backed vultures and Malabar Pied Hornbill and migratory variety. It mainly, comprises of aquatic birds, birds of prey, quails and fowls, pigeons, parakeets, owls, nightjars, swift, swallow, kingfishers, wood peckers, bee eaters and babblers, flycatchers and warblers, chats and thrushes, flower peckers and sun birds and sparrows. List of Birds attached in Appendix-XXV

2) **Objectives Of Management**

The prime objectives set forth for management of avifauna of the PTR under this Theme Plan have been prescribed, as follows.

- Identify threatened species of birds i.e. White Backed Vultures, Malabar Pied Hornbill, Painted spur fowl and its habitat.
- Conserve the avifaunal bio-diversity of the PTR by protecting its habitat conditions, especially, the water bodies, riparian areas, edges, nallas, streams and waterhole sites.
- Prepare inventory of avifauna of the PTR and its seasonal variations.
- Generate awareness about the conservation value and ecological role of avifauna in maintenance of natural habitat conditions and ecological balance.

3) **Management Prescriptions**

The prescriptions for conservation of the rich Avi-fauna of the PTR and its habitat have been prescribed, as follows.

The habitat conditions in and around water bodies, namely, Totladoh Reservoir, Navegaon-khairi Reservoir and other small lakes and Pench River sites shall be protected against the local human and livestock use.

- i) Treatment of the Catchments of these water bodies would be undertaken to improve the water availability and check erosion and thereby siltation in these water bodies and water stretches.
- ii) Large size trees shall be identified and protected to provide sites for roosting and nesting of threatened and endemic species.

- iii) Vegetation along streams, rivulets and nallas shall be monitored for roosting and nesting behaviour of avifauna.
- iv) Streams and water courses shall be identified with a view to improve habitat conditions by creating water pools and niches and planting amphibian, aquatic and bank vegetation along them.
- v) Training shall be imparted to the frontline staff in identifying birds, birdcalls, bird signs, bird estimation and avifaunal biology.
- vi) Viable symptoms of any epidemic affecting native fauna shall be monitored and reported at regular intervals to ensure their safety of native fauna.

7.2.7 THEME PLAN FOR RESEARCH AND MONITORING

The detailed prescriptions about the Research and Monitoring have been given in Chapter- VIII

7.2.8 THEME PLAN FOR ECOTOURISM AND CONSERVATION EDUCATION

The detailed prescriptions in regard to Eco-tourism have been given in Eco-tourism plan of Pench Tiger Reserve.

7.2.9 MISCELLANEOUS PRESCRIPTION

Prepare site specific training module for front line staff including protection hut Personnel. After each training targets to be given and during subsequent training feedback to be taken so as to improve on training module. Training in latest technical gadgets like GPS, tranquilising techniques, flying UAVs , camera traps etc in the wildlife conservation and also train and refresh the field staff in basic principles of wildlife management by establishing a training school at Sillari, exclusively for the field staff of pench tiger reserve, which can be managed through the Pench tiger conservation foundation.

7.2.10 POPULATION ESTIMATION

- i) It is proposed to carry out population estimation on scientific lines twice every year.
- ii) To lay out Permanent transect line for monitoring of Prey and their Habitats.
- iii) Carnivores sign survey shall be carry out as per the prescription of WII, Dehradun.
- iv) Permanent Pugmarks impression pad will be prepared as per the recommendation of WII, Dehradun and record shall be maintained. It is prescribed to lay impression pads at strategic points like roads, treks, waterholes, etc. every year. These impression pads should be mapped and documented.
- v) It is proposed to undertake this exercise in the months of winter and summer of every year.
- vi) Use of digital camera trap in estimation operation and also for regular monitoring is also recommended.
- vii) Waterhole-count is also proposed for herbivore population for carrying out estimation operation once in year.
- viii) Help of local NGOs, nature and wildlife lovers, volunteers, teaching institutions, etc. in conducting the estimation operation shall be taken.

8.1 Research Priorities

Research and monitoring activities on various aspects of wildlife management and wildlife health in the park will be taken up. Research needs to be focused on following issues.

- 1) Identification of plant species preference by wild herbivores from pellet analysis.
- 2) Impact of grazing on the Wild life and natural habitat.
- 3) Qualitative and quantitative evaluation of habitat development work done by the department.
- 4) Identification of Endo and ecto-parasites.
- 5) Surveying and mapping of exotic plant species and restoration of weed infested habitat.
- 6) Comparative study between disturb and undisturbed habitat.
- 7) Status of sloth bear in the area.
- 8) Study of village eco development program.
- 9) Tiger recruitment and dispersal.
- 10) Prey population dynamic seasonal and spatial
- 11) Ecology of White backed vultures
- 12) Study of aquatic habitat and its wildlife down stream of Meghdoot Dam
- 13) Study of fish species in water body and up stream inlets. Meghdoot Dam and lower Pench water body.
- 14) Study of ecology of Malabar pied hornbill.
- 15) Faunistic and Floristic survey of the Pench Tiger Reserve with special reference to the wildlife covered under various schedules appended to Wildlife (Protection) Act, 1972 and also other endangered, threatened and keystone species.
- 16) Regeneration survey of Pench Tiger Reserve with special emphasis on endangered plants viz. *Sterculia urens*, etc. This research activity should lay par with particular focus on the flora which the wild animals feed on especially in the scarcity period.
- 17) Feeding habits, preferences of important herbivorous wild animals with special reference to scarcity period
- 18) Assessment of territories and home ranges of important carnivores in the Pench Tiger Reserve and also seasonal fluctuations in it through Wildlife Institute of India.
- 19) Study of the behavioral pattern of wild animals in Pench.
- 20) Study of the population dynamics, density, structure, groups, sex ratio, prey-predator ratio etc
- 21) Surveillance and monitoring of wildlife health.
- 22) Testing of forest soil to assess the mineral deficiency, so that adequate focus mineral could be supplemented through salt licks, waterholes etc.
- 23) Survey of water holes in order to test its hygiene with respect to infestation by helminthes, harmful protozoan etc.
- 24) Response of the wildlife to the changes introduced by management like habitat manipulation.
- 25) Methods to avoid crop depredation by wild animals to the agricultural fields in and around the Pench. These methods should not put the wild animals under stress and be cost effective.
- 26) Study and monitoring of the methods involved in various illegal activities like tapping of gum, poaching, fishing, illicit felling and causes for it.
- 27) Photographic monitoring of habitat conditions, in order to provide time series of habitat conditions, and habitat factors undergoing changes. This should be done particularly before and after the occurrence of the event viz. onset of fire season, grazing, various seasons, clearing etc.
- 28) Monitoring of the impact of tourism on the wildlife of Pench.
- 29) Monitoring of tourist inflow and preferences though feedback.
- 30) Application of remote sensing satellite generated imageries can appropriately and effectively be done for monitoring various aspects management of the Pench Tiger Reserve. Thematic maps' on various aspects with temporal changes can be generated on some of the aspects like (a) Forest types (b) Forest density, (c) Water bodies, (d) Drainage, nallas, streams (e) Slopes, (f) Village/Areas, (g) Soil Type, (h) Under ground water, (i) Fires, (j) Compartment boundaries, (k) Degraded areas etc.
- 31) Monitoring of water regime, rainfall, temperature etc. Water availability and distribution would be monitored by doing waterhole survey in every: fortnight from January to the onset of monsoon. Similarly, important nallas etc. would also be monitored from December onwards.

A format of questions which are important when initiating a field investigation and making a case

history after sighting a wildlife disease evidence is important for monitoring purpose .

Expertise in various scientific aspects of research and monitoring activities would be brought in, thus seeking their help from various Government agencies like Zoological Survey of India, Botanical Survey of India, Wildlife Institute of India, BNHS, NEERI, Fisheries department. Help of various colleges from Nagpur would be sought viz. Departments of Zoology, Botany, Veterinary' college etc. Even the Managers that have already undergone training in the related field can be of help. Other experts of amateur nature or even skilled personnel from any Non-Governmental organization can be entrusted with this work. Researchers from related field would be encouraged to take study problems, which would be of importance to Pench Tiger Reserve management especially students of Nagpur University, Dr. PKV. etc. would be encouraged to take up research in this field. Reports from research scholars should be obtained about their research findings to use them in management of Pench Tiger Reserve. Also special projects of significance in management can be initiated as under

Sr. No	Name of Institution /NGO's	Topic of Study	Time frame
1	Zoological Survey of India	Check list of fauna	2 years
2	Botanical Survey of India	Flora of Pench Tiger Reserve	2 years
3	Wildlife Institute of India	Dispersal of Tiger in landscape	5 years
4	Bombay Natural History Society	Socioeconomic impact of Eco-development/ JFM in PTR villages	1 years
5	National Environment Engineering Research Institute (NEERI)	Evaluation of traditional surface water conservation techniques employed in PTR and water analyses.	1 year
6	Fisheries Department /PKV/ Nagpur Veterinary College	Effect of commercial fish management on native fish varieties in PTR.	2 years

8.2 Research Projects

One research projects related Pench Tiger Reserve has been completed. Distribution and Dynamics of Tiger and prey population in Maharashtra (2002-2005) by U.Karant. Detail findings of the projects are as follows:

Distribution and Dynamics of Tiger & prey population in Pench Tiger Reserve of Maharashtra.

It provides scientific input on specific habitat development to provide sound scientific base to Tiger Reserve Management. It is study of Population dynamics of Tigers and its prey base. It includes

- 4) Mapping of area with prominent physical and logistic features.
- 5) A bench mark Camera-trap survey of tiger abundance at 60 locations and 715 trap Nights.
- 6) Line transect survey of Principal prey species to estimate prey density over 30 transect lines over 112 k.m. Length.

Project was completed in 2005. The project has provided estimation of density of predator and prey species as given below.

Tiger	-	7.3/100 sq.km.
Chital	-	5.8/ sq.km.
Sambar	-	5.9 /sq.km.
Chausinga	-	1.1/ sq.km.
Gaur	-	0.8/ sq.km.
Nilgai	-	0.5 /sq.km.
Pig	-	2.0 /sq.km.

Monitoring of Tiger and prey population

Maharashtra state has a large forest area of which 6000 to 9000 sq.km. is potentially a good tiger habitat. Tiger population in Tiger Reserve is reported to be small i.e.20 to 70. Regular monitoring helps to identify trends in animal population. Monitoring using rigorous scientific methods with yield unbiased information on status of tiger and prey in tiger reserve. Timely re-medical measures can be taken if down word trend is observed. Results of proactive management actions can also be assessed by changes in animal population. Tiger and large carnivore monitoring is carried out by scat encounter rate survey.

Objectives

To strengthen Conservation of Tiger and its prey animals by generating information on their status.

3. Build local capacity in scientific monitoring.

4. To gain scientific knowledge by analysis of information generated through project.

Research and monitoring activities on various aspects of wildlife management and wildlife health in the National Park will be taken up. Some important aspects which need to be covered under this includes the biodiversity of Pench, behaviour study of important animals, change in forest cover and related to health of wild animals. Research needs to be focused on following issues.

1. Tiger recruitment and dispersal.
2. Prey population dynamic seasonal and spatial
3. Ecology of White backed vultures
4. Study of aquatic habitat and its wildlife downstream of Meghdoot Dam
5. Study of fish species in water body and upstream inlets. Meghdoot Dam and lower Pench water body.
6. Study of ecology of Malabar pied hornbill.

Brief description of some of the ongoing projects

Study of Art and Culture of Tribal belt in Central India

Culture is the complex whole which includes knowledge, belief art, Moral laws, Customs and other capabilities acquired by man as a member of society. Culture consists of abstract pattern of and for living and dying. Their Handicraft and Artifact are out of bamboo and bell metal.

The Gonds have intermarried and bred with Rajputs, Muslims, and Marathas and characteristically are more modern.

Tourism is likely to play major role in tribal tracts and will either uphold or destroy their culture. A study of tribal belt becomes very important.

Change is going to come whether the tribal themselves want the change or do we want to keep them as Museum pieces for tourists to the question.

Survey of Ecological Status of Jackal – PTR, Maharashtra

Jackal is included in part II of Schedule 2G of Wildlife (Protection) Act 1972. By Scientific study of Jackals on

6. Evolution pattern
7. Interspecies and interspecies behaviour
8. Food availability
9. Prevalence of different parasitological disease.
10. Adoption strategy in Wild.

We will be able to identify the habitat of Jackal which is important for long term conservation.

Proximo Epidemics

Parasites can play a major role in evolution and ecology of Carnivores might be carriers of highest parasites loads of cell mammals. These parasites may have a profound influence on ecology, herbivore reproductive success of carnivores. Pench being unspoiled habitat and having rich bio-diversity of animals, prey predator interaction and their dynamics may be studied here. It is important for conservation of important species like Tiger, Leopard, Wild dog, Jackal etc. parasites can alter the outcome of inter specific dynamics.

Objectives Competition and Predator-Prey

4. Investigate the life cycle of parasites (domestic & wild hosts) and identify their immediate host.
5. Study the quantitative pattern in geographic distribution of parasites and immediate hosts.
6. Defect the possible association with the ecology and behaviour of host individual.

Species free of predation like large carnivore, large herbivores or special with anti Predator mechanism a Porcupine and Wild Ass have higher parasite load. Prey species such as Deer, Antelopes and Gaur have low prevalence and intensity of infection. Attention may be paid to sudden outburst of epidemics than to any of the endemic parasites of low to moderate virulence.

8.3 Monitoring Framework

Maharashtra state has a large forest area of which 6000 to 9000 sq.km. is potentially a good tiger habitat. Tiger population in Tiger Reserve is reported to be small i.e. 20 to 70. Regular monitoring helps to identify trends in animal population. Monitoring using rigorous scientific methods with yield unbiased information on status of tiger and prey in tiger reserve. Monitoring protocol should be made applicable to all cadres during their field visits. The purpose of the field visit may be patrolling, inspection, work execution but in course of movement through the habitat observations should be documented and subsequently compiled at range level especially for fauna like tiger, panther, wild dog. Sloth bear, crocodile, vulture, gaur and sambar and other important predator and prey species.

Timely remedial measures can be taken if down word trend is observed. Results of past management actions can also be assessed by changes in animal population. Intensive monitoring of Tiger and large carnivore will be carried out by method suggested by the WII, Dehradun.

8.4 Training Needs Assessment

lower staff should be trained for research oriented work. The local staff can be trained for the research work like i) changes in the habitat after Notification ii) Impact of tourists on Tiger Habitat iii) Impact of removal of weed species over the habitat etc. and the works may be carried out on range level. Gradually, field staff will be trained in using MSTRIPES, which is a state of the art wildlife monitoring software

8.5 HRD Plan

Human Resource Development Plan will be prepared and works will be carried out with the help of Professional bodies, like WII, WCCB and State Reserve Police Force and other state and central training institutes. Weapons training of Special Tiger Protection Force have already been completed in march 2015.

Decision support System: It is proposed to develop a decision support system based on Geographical information system (GIS). GIS base decision support system for assisting the Pench Tiger Reserve management will be developed with the assistance of GIS expertise this will be useful in providing and assisting the Pench management in taking crucial decision like finalizing the habitat development site, waterhole site and developing protection strategy etc. A dedicated GIS cell has been developed at Nagpur.

Chapter IX - Tiger Population and Habitat Assessment

Monitoring status of tigers, co-predator prey base and evaluating habitat quality constitutes one of the most important components of the conservation plan. The existing methodology of tiger estimation has been reviewed and refined methodology has been developed. This refined methodology has been endorsed by the National Tiger Conservation Authority (NTCA) in its first meeting held on 28.11.2006. The details of the methodology are given in book entitled “**Monitoring Tigers, Co predators, Prey and their Habitat**” published by WII, Dehradun and NTCA, New Delhi. It comprises of a three stage process involving primary data collection at forest guards beat level, its collation and analysis. Camera trapping in core and buffer zone to ascertain the density of tiger is advised.

9.1 Daily Monitoring and Forecasting

PTR is home for source populations which is extremely important for long term conservation of tigers at landscape level. It is therefore necessary to intensively monitor tigers and its associated components of prey and habitat attributes on continuous basis. Following format is prescribed by NTCA for daily monitoring. This will strengthen the supervision at field level and also generate information on regular basis for evaluation of tiger occupancy. The analyzed information is to be sent to NTCA monthly.

Protocol for daily monitoring / forecasting of tiger presence in a habitat

1. Lay at least 5 pugmark impression pads (PIPS) in a beat, preferably in areas frequented by tigers.
2. The distance between two successive PIPS should be 1.5 km.
3. The size of PIPS should be 6 m in length.
4. Monitor the PIPS once a week for tiger evidences (pugmarks/ scats) and also use camera traps if available.
5. Take photographs as well as plaster casts of pugmarks; if possible.
6. Sudden, drastic reduction in tiger evidences is warning (forecasting)
7. Following proforma will be filled everyday by each Gastipathak & by individual forest guard while moving in his beat.

Date: _____ **RANGE:** _____ **BEAT NAME:** _____ **PIOP**

No.: _____ **GPS Coordinate:** _____ **Time:** _____

Put tick marks in appropriate column			
Sr. No.	Name of Animal	Position	
1.	Tiger pugmark	Present	Absent
2.	Plaster cast of pug mark	Taken	Not taken
3.	Habitat Type		
4.	Male	Tracks recorded	Not recorded
5.	Female	Tracks recorded	Not recorded
6.	Cubs	Tracks recorded	Not recorded
7.	Other Carnivore	Tracks Present	Not Present
8.	Hyena		
9.	Leopard		
10.	Sloth bear		
11.	Wild dog		

9.2 Tiger Population Estimation and Monitoring Framework (Phase I, II, III and IV)

The tiger population monitoring is normally a total count (estimation) of country wide tiger population every 4 years and within tiger reserve every year. The estimation is based on intensive monitoring of tigers within areas identifying individual tigers by visual inspection of pugmarks, tracing/plaster cast. This methodology has come under the severe criticism. Major limitations of this technique are (1) it relies on subjective (expert knowledge) identification of tigers based on their pugmarks. (2) The pugmarks of a tiger are likely to vary within substrate, tracings/casts and the tiger's gait: (3) it is not possible to obtain pugmarks of tigers from all tiger occupied landscapes, and (4) the method attempts a total count of all tigers.

An alternative proposed by tiger biologists is to use individually identified tiger by camera traps in a

capture-recapture statistical framework to estimate tiger densities.

The other two potential methods that can be used in smaller sample areas for monitoring source tiger populations are the individual identification of tigers from digital images of their pugmarks and tiger DNA profiles obtained from scats and other non-invasive techniques.

Methodology for estimating and monitoring tiger status and habitat by Y. V. Jhala, Qamar Qureshi (both faculty WLII) and Rajesh Gopal, Director, Project Tiger is given below.

Stage I : Spatial mapping and monitoring of tigers, prey and habitat

This stage consists of mapping of forest beat taking it as unit of sampling. The sampling is systematically distributed in all beats of tiger occupied forests. The detailed methodological approach for sampling is given in the field guide by Jhala and Qureshi 2004. The target data are extremely easy to collect and requires minimum technical skills. The special data generated is scientifically robust, and amenable for statistical analysis and inference. Since several replicate surveys will be undertaken in each beat, we shall be able to model tiger occupancy, detection probability of tiger signs, and relative sign density at a high spatial resolution. Since the data will be analyzed in a GIS domain, several spatial and attribute data like human density, livestock density, road network, topographical features, forest type and cover, meteorological data, poaching pressures and landscape characteristics will be used as covariates to model tiger occupancy and relative abundance in a landscape and individual forest patches. Time series analysis of the data at a larger spatial resolution is likely to have sufficient precision for monitoring spatial occupancy of tigers in association with changes in tiger prey, habitat quality and anthropogenic pressures.

Stage II: Spatial and attribute data

The spatial and aspatial data that are likely to influence tiger occupancy of a landscape is used for modeling in a GIS domain. The vegetation map, terrain model, night light satellite data, drainage, transportation network, forest cover, climate data, Normalised Difference Vegetation Index, livestock abundance, human density, socio-economic parameters, etc. is used for modelling habitat condition and tiger occupancy. Beat-wise vegetation sampling is done to generate broad vegetation map. This modelling helps in determining current spatial distribution of tigers, potential habitats, threats to crucial linkages between occupied landscapes and conservation planning.

Stage III: Estimating the population of tigers and its prey

This answers the question of how many tigers and ungulates are there.

Tiger numbers

Tiger conservation unit is stratified into tiger conservation sign abundance classes of high, medium, low and no tiger sign at the beat and larger spatial resolution. (Range 100 sq.km.)

All known techniques of tiger density estimates are used depending on the logistic possibility within each landscape: capture-recapture based on camera traps, mark-recapture based on pugmarks, and DNA profile obtained from tiger scat. These densities will then be extrapolated for the areas under various density classes within the landscape to arrive at a tiger population estimate.

Tiger prey

Stage I of the protocol reports encounter rate on line transects sufficient for monitoring trends in ungulate population and site specific occupancies. Pellet group counts on transects serve as an index to the presence of ungulate species and pellet relative abundance, especially in disturbed areas where actual sightings may be difficult.

Stage IV: Intensive monitoring of source populations

It is expected to monitor source population of tigers in the reserve by following methodology.

Photo registration of tigers:

Pictures of individual tigers obtained by camera traps or by regular cameras should be maintained in the form of a photo identity album. Records should be kept on the location, condition breeding status, injury, etc.) and associated tigers whenever a tiger is sighted. This will provide crude data on ranging patterns demography and mortality.

Camera Trap Method shall be used for monitoring this large carnivore's population. Professional body like WWF-India and WII, Dehradun may be involved in monitoring process using camera trap.

However, capacity building of staff of Pench Tiger Reserve in techniques of Camera trap is important for regular monitoring of Tigers;

Tiger pugmarks and other signs:

Regular monitoring of tiger signs (pugmarks tracings, plaster casts, etc) should be undertaken in every beat at a weekly interval within monthly compilation of data. With experience and exposure to the resident

tigers and their pugmarks, the forest staff may be able to identify individual tigers from their track set characteristics. Sign surveys and individual tiger monitoring should become a regular task for every guard in PTR. The monthly data should be mapped and maintained to analyse trends.

Monitoring by telemetry in select areas:

Use of modern technology of VHF, GPS and satellite telemetry to study and monitor aspects of demography, meta population dynamics (dispersal, ranging patterns), mortality, predation ecology and behavior is expected.

In all source populations, tiger abundance and density should be estimated using camera traps, digital images of pugmarks and/or DNA profile from non-invasive methods biannually.

The Project Tiger directorate will play the overall supervisory and coordination role for all the phases and tasks under each phase of the monitoring.

9.3 Habitat Assessment and Monitoring Framework

Sampling for Vegetation, Human Disturbance, and Ungulate Pellets

To quantify the habitat parameters and determine relative abundance of ungulates sampling will be done along the same line transect on which ungulate encounter rates were estimated. For economy of time and effort it would be possible to first sample the line transect during early morning hours for ungulate encounter rate and then while returning along the same line, sample for vegetation and ungulate pellets. Sampling for vegetation, ungulate dung and human disturbance will be done only once on a transect.

- 1) Again a beat will be the sampling unit, and sampling will be done along the established line transect.
- 2) The beginning and end point coordinates of the line transect need to be recorded using a GPS unit.
- 3) The same principle of laying line transects as explained in the section on ungulate encounter rates is applicable here (see Figure 2).
- 4) Vegetation would need to be sampled every 400 m along the transect.
- 5) The vegetation would need to be quantified visually at the following categories for each plot.

In 15 m. radius circular plot

- 1) Broad vegetation type and associated terrain type eg. mixed teak forest on hilly terrain, bamboo forest on flat land, etc.
- 2) Within a distance of approximately 15 m of the observer the five most dominant trees need to be listed in the order of dominance (abundance) (see Figure 4).
- 3) The observer needs to list the 5 most dominant shrub species in order of dominance (abundance) within 15m of the location. He needs to categorize shrub density (under-story vegetation) as absent, very low, low, medium, and dense. Shrubs will be assessed on five point scale (0 to 4 i.e. absent to most abundant) for density estimation.
- 4) If weeds are present, their abundance needs to be scored on 0 to 4 scales (0 being absent and 4 being high abundance) and the three most common weeds seen in 15m need to be listed in order of abundance.
- 5) Within the same 15 m distance the observer needs to record number of signs of looping, wood cutting, and presence/absence of human foot trail.
- 6) The observer needs to visually quantify the canopy cover at the location. The observer should subjectively classify the proportion of the sky above him that is covered by canopy foliage and categorize it into < 0.1, 0.1-0.2, 0.2-0.4, 0.4-0.6, 0.6-0.8, > 0.8 canopy cover (see Figure 5).
- 7) A mention needs to be made in the data sheet regarding the number of permanent human settlements, human population, and livestock population present in the beat (to the best of his knowledge).
- 8) A mention needs to be made based on the observer's knowledge if any non timber forest product is collected from the beat. If yes, which NTFP and to score the magnitude of collection on a 5 point scale (0- no collection, 4-high rate of collection).

In 1 m radius circular plot

The observer needs to use a 2m long stick to define an imaginary circle around him with the stick as the diameter. Within this circular plot (2m diameter) the observer needs to a) quantify the percent ground cover, i.e. the proportion of the ground covered by herbs, grasses, litter, and bare ground, b) List the 3 most dominant grass species, and herb species in order of dominance (see Figure 6).

Sampling for Ungulate Pellets

Ungulate abundance will also be indexed by enumerating their faecal pellets. This exercise will be done on the same line transect that has been sampled for ungulate encounter rate. To save time, this exercise could be done after the line transect has been sampled in the early morning for ungulate encounters.

- i. At every 400 m along the transect (line of walk) the observer needs to sample an area of 2m by 20m, perpendicular to the transect for quantifying ungulate pellets. This is done by using the 2 m long stick held at the centre horizontally in his hand and by walking slowly, 20m right and left of the transect alternately at every 400 m (see Figure 7).
- ii. All ungulate pellets encountered need to be recognized to ungulate species and recorded in appropriate columns of the attached data sheet.
- iii. The number of fecal pellets needs to be counted. In cases where the pellets occur in large heaps, then they should be categorized into the following categories: A (50-100), B (100-200) and C (>200).
- iv. In areas where small livestock like sheep and goat are known to be grazed, it is possible that fecal pellets of these can be confused with wild ungulates especially those of chital. In such areas, a mention needs to be made that goat or sheep graze the area.
- v. In the last row of the data sheet the observer needs to report if ungulate/animal listed in the data sheet occurs in the sampled beat to the best of his knowledge irrespective of whether its pellets/dung were recorded in the plots.

Data collection protocol

(Source: Monitoring Tigers, Co-predators, prey and their habitat: Field Guide, Jhala, Y. V. Qureshi, Q and R. Gopal 2009. Project Tiger Directorate and Wildlife Institute of India)

Sampling for Carnivore Sign Encounter Rate

To obtain data on the presence, absence and intensity of use of a beat by tigers and other carnivores, we shall quantify the relative abundance of tiger, leopard, and carnivore signs in an area. The following procedure needs to be followed for data collection:

- A beat will be considered as a sampling unit.
- Areas within the beat that have the maximum potential for tiger occupancy will be intensively searched.
- Since tigers and leopards have a tendency of using dirt roads, trails, foot paths, river beds and nallahs, these landscape features within the beat need to be searched intensively (Figure 1).
- One to three persons who know the terrain and habitat features of the beat should conduct the search for tiger sign.
- There should be 3-5 separate searches (in different compartments within the beat and/or at different times 1-5 days apart) each search covering about 4-6 km distance in areas having the best potential for tiger presence. It is important to record the distance covered and the time spent during each search separately (in the data sheet-1) and accurately. If time is spent resting or in other activities while conducting the search, this duration should be reported separately. If possible the GPS coordinate of the beginning point of each search path should be recorded.
- The total minimum distance covered while searching for tiger and other carnivore sign should be 15 km per beat.
- Tiger and leopard signs should be classified into the following categories 1) Pugmark trails, 2) Scats (Old : dry with hair and bones visible; Fresh: dry but intact with shiny surface; Very Fresh: soft, moist, and smelly, 3) Scrapes, 4) Scent marks (spray, rolling), 5) Rake marks on trunks, 6) Actual sighting, 7) Roaring (vocalization).
- A brief description of the topography and forest type is to be recorded for each sign.
- In case of pugmark trails, each trail set is considered as one sign (not each pugmark as one sign). In case a tiger (or other carnivore) continues to walk along a dirt road for a long distance (say 1 km), then this should be considered as one sign, and a comment recorded in the remarks section of the data regarding distance covered by a pugmark trail of a single tiger.
- Tiger and leopard signs if encountered outside of the sampling route should also be recorded with GPS coordinates (if available) and with appropriate comments.
- Special emphasis should be given to sign of tigress and leopards with cubs, and any authentic evidence of tiger cubs (sightings of cubs, lactating tigress, tracks, etc.) obtained within the past twelve months should be mentioned in the data sheet.
- While sampling for tiger and leopard signs, record should also be kept for signs of any other carnivore that are encountered.
- The number of livestock that are killed by predators within the past three months needs to be recorded in the questionnaire following the data sheet.

- It is important to report data sincerely. It is likely that there may be reliable information that tiger/leopard is present in the beat being sampled, but no tiger/leopard signs are recorded during the intensive search survey. In such cases, mention should be made in the remarks column of the data sheets. However, failure in obtaining tiger sign from a beat is equally important as recording tiger/leopard signs and for appropriate analysis of this data the actual data should be reported.

Data Sheet – 1

Data Sheet for Tiger, Leopard and Other Carnivore Sign Encounter Rate

Observers name : Start Time :
 Date: End Time :
 Begin GPS : Lat:N, Long : E
 Forest Division:
 Range: Beat :
 Total Kms. Walked Km. Times Spent in any other activity Min.

Sl. No.	*Carnivore Species	Forest Type	^ Sign Type	Terrain Type	Remarks
1					
2					
3					

* Carnivore species to be recorded: tiger, leopard, wild dog, bear, hyena, wolf, jackal

^Sign types to be recorded are pugmark, scats, scrapes, rake, vocalization, and direct sighting.

- 1) Has any tigress with cubs been reported during the past 12 months ?
 Yes ___ No ___ Approximate date/month _____
 a) Seen by staff, b) Pug Marks,
 c) Reported by local persons, d) Seen by officials (^the appropriate)
 How many cubs _____, approximate age of cubs _____.
- 2) In case tigers are known to be present in the beat, but no sign was obtained during the sampling period then mention on what evidence was this conclusion made (pugmark, direct sighting, scat, other sign) _____.
 Approximate date/month _____ Tiger presence was last recorded in the beat.
- 3) Has any leopard with cubs been reported during the past 12 months ?
 Yes ___ No ___ Approximate date _____
 a) Seen by staff, b) Pug Marks,
 c) Reported by local persons, d) Seen by officials (^the appropriate)
 How many cubs _____, approximate age of cubs _____.
- 4) In case leopards are known to be present in the beat, but no sign was obtained during the sampling period then mention on what evidence was this conclusion made (pugmark, direct sighting, scat, other sign) _____.
 Approximate date/month _____ leopard presence was last recorded in the beat.
- 5) How many livestock predation events have been recorded in the past 3 month, _____ by tigers, _____ by leopards, _____ by Dhole, _____ by other carnivores _____, _____, _____, specify which carnivores if known _____, _____, _____.
- 6) Comments and Remarks :

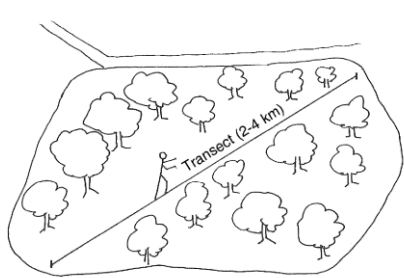
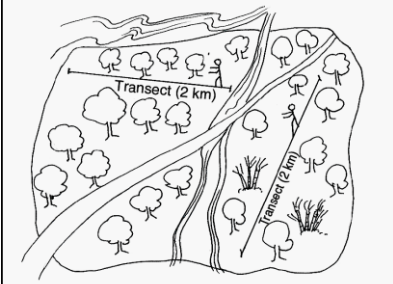
Sampling for Ungulate Encounter Rates

This protocol outlines a simple method for quantifying ungulate abundance in an area based on visual encounters while walking along fixed line transects. The following procedure needs to be followed for data collection:

- A beat would be considered as the unit for sampling.
- After considering the shape, size, vegetation, and terrain type of the beat, a transect line of a minimum of 2 km and not exceeding 4 km will be marked for sampling.

- The transect line should traverse similar habitat (broad vegetation types) as far as possible. If the beat is composed of 2 or 3 distinct vegetation types eg. Mixed Teak Forest comprising 40% of the beat and the remaining 60% comprised of Miscellaneous forest with bamboo, then 2 separate line transects should be marked for sampling as shown in Figure. 2b.

- **Figure . Marking Transects in a Beat.**

<ul style="list-style-type: none"> • Figure 2A Line transect in a beat with similar habitat 	<ul style="list-style-type: none"> • Figure 2B Line transect in a habitat with 2 habitat types
<ul style="list-style-type: none"> •  	<ul style="list-style-type: none"> • 

- As shown in figure 2b, the line transect within a beat may be broken up into 2 or more segments so that each segment has a minimum length of 2 km and traverses similar habitat.
- Care should be taken that a line transect is not located near a busy road nor should it run parallel to a river or other features of the landscape which may bias sighting of ungulates.
- For each transect the point of beginning and end point coordinates (Latitude and Longitude) should be recorded by a global positioning system.
- The broad forest type and terrain type that the transect traverses needs to be recorded.
- Each transect should be walked by 1-2 persons during the early morning hours (6:30 AM to 8:30 AM). Preferably one of the persons walking should be a good field person who is able to spot wildlife.
- A record should be kept of all mammals and peafowl seen during the walk in the prescribed format (see data sheet). For each animal sighting the following needs to be recorded: 1) serial no of the sighting, 2) time of the sighting, 3) species (eg. Sambar, chital, wild pig, peafowl, languor, etc.), 4) group size – number of animals of the same species in the group sighted, it is important to try to count the number of animals in the group as accurately as possible. Animals are considered to belong to two different groups if the closest animals from the two groups are separated by a distance of over 30 m.
- If possible the number of young (fawns/calves less than 1 year of age) seen in the group should also be recorded.
- A broad habitat category (vegetation and terrain type) needs to be recorded for each sighting eg. S. No.5. 12 chital (10 adults and 2 young) were seen at 6:40 am, in mixed teak forest, gently undulating terrain.
- Each line transects needs to be walked at least on three different mornings for estimating ungulate encounter rates.

Data Sheet - 2

Encounter Rate on Line Transects

Observer name : Start Time :
 Date : End Time :
 ID no. of Line Transect : Total Length :km
 Forest Circle : Forest Division :
 Range : Beat :
 Transect Forest Type : Transect Terrain Type:.....
 Weather condition : Cloudy/Clear sky
 Beginning GPS Lat :N; Long :E
 End GPS Lat :N; Long :E

Sl. No.	Time	Species*	Total Nos. (Adults and Young)	Young	Forest Type	Terrain Type	Remarks
1							
2							
3							
4							
5							

*Species that need to be recorded on the transect: chital, Sambar, Nilgai, gaur, barking deer, elephant, rhino, wild buffalo, swamp deer, hog deer, chowsingha, blackbuck, chinkara, wild pig, langur, peafowl, hare, cattle(live stock), and other mammalian species seen.

9.4 Spatial Database Development: - The process given in 9.1, 9.2 and 9.3 will form the basis of development of data. The help of GPS/GIS will be taken develop the database.

9.5 Analyses and Reporting Framework: - Monthly data received will be analysed for distribution of animals, habitat, sighting etc. The data will be forwarded to CCF, PCCF and NTCA.

9.6 Habitat Data: Detail of Habitat data shall be collected twice along with Carnivores sign survey and Ungulate survey as prescribed in Monitoring protocol book of WII, Dehradun.

9.7 Predicted Predator Density

As per the estimation of prey density carried out by line transect sampling in the core area(pench national park) in 2012-13 is as follows. Based on the prey density, the carrying capacity of the tigers in both core area and buffer zone area of pench tiger reserve is calculated using the Haywards' formula as follows.

Prey Density in Pench Tiger Reserve(Core) Computing Carrying Capacity of Tigers in Pench Tiger Reserve, Maharashtra (Core and Buffer separately)

CV: - Co efficient of variance, DS: - density of clusters, D: - density of animals, Standard Error, CI:- Confidence Interval.

	Preferred Prey	Density/Sq.km +SE	3/4 th Average Female weight	Available Biomass Prey kg per Sq.km(Mean+- SE)
1	Chital	26.8 <u>+7.7</u>	30	804 <u>+ 231</u>
2	Sambar	8.7 <u>+ 2.1</u>	150	1305 <u>+ 315</u>

3	Wild Pig	16.1 \pm 5.6	40	644 \pm 224
4	Gaur	1.6 \pm 0.6	300	480 \pm 180

Predicted Tiger Density Calculation (Haywards Formula) $y = -2.158 + 0.377x$

$x = \log$ of predicted predator density, $y = \log$ of preferred prey biomass

Total Preferred Prey Biomass- 3233 (+ 950) Kg/Sq.km

Predicted Tiger Density in core area - 14.63 \pm 9.21/100 Sq.km

Current Tiger Density in core area

as per 2012-13 camera trap report: 6.00 /100 Sq.km

Chapter X - Protection and Intelligence Gathering

10.1 The Tiger Cell

The tiger cell have been established at state level under the Additional Director General, Police (HQ) with PCCF (Wildlife) as Co-Chairman and CCF (Wildlife), Nagpur as Member Secretary as per G.R. No. WLP-10-2000/C.N.10/F-1, Mumbai, dated 7th November 2000.

At regional level tiger cell have been formed with Special IG as Chairperson and C.F. Nagpur as Member Secretary and concerned C.F. (Wild life) as Member.

For Nagpur Revenue Division C.F. , Nagpur is Member Secretary and C.F & FD, Pench , Nagpur and C.F. (Territorial), Chandrapur are Members as per PCCF (Wildlife), M.S. Nagpur letter No. Desk-23(B)/C.N./4288, dated 31st March 2001. Modification issued vide letter no WLP -10-2000/ C.N.10/F -1 dated : 30.3.2007

At District level tiger cell is headed by Superintendent of Police and co-chaired by DCF (Territorial). The vigilance DFO is Member Secretary of this committee.

10.2 Special Tiger Protection Force for Pench Tiger Reserve has been constituted.

Special Tiger Protection Force comprising of 1 ACF, 3 Range Forest Officers, 81 Forest Guards and 27 Forest watchers selected from local tribal and they have been provided with a vehicle and wireless equipments. This force patrols the vulnerable areas. STPF is a special force, built on the line of India Reserve Battalion. Illegal fishing activity in Meghdoot dam is a major threat and disturbance to the core area of tiger reserve. STPF has been given the task of controlling the illegal fishing.

It is proposed to divide STPF into three strike forces permanently stationed at Sillari, Ghatpendhari and Totladoh and some transient stations, as per requirement of the time.

10.3 Strategy for Protection and Communication

There are 15 protection huts around the PTR. A Forest Guard with 3 to 4 labourers camps at these protection huts and patrols the nearby forest areas. The vehicles and base station communicate with each other.

There is plan to supplement the wireless system with mobile phone system.

10.4 Fire Protection

The fire protection work is presently done by RFO, East Pench/RFO, and West Pench. Additional vehicles and equipment's are proposed to be procured for this. In the area under control of Nagpur Forest Division, the Fire tracing is done by Staff of Nagpur Forest Division in Buffer Zone. In the Area under F.D.C.M., Fire tracing is done by Staff of Nagpur Project Division F.D.C.M.

It is proposed to clear all the fire lines of the trees growing in them. The trees on the fire lines poses threat of fire through the falling leaves even after the lines are burnt. It is proposed to create new fire lines along all the compartment lines where they do not exist. This will also create additional edges for wild animals.

The lengths of existing fire lines are being calculated. There is one tree per 10 running meters on the fire lines. It amounts to 100 trees per km. It is proposed to clear of about 90 k.m length every year. The schedule of annual clearance is given in Appendix no. X in Management Plan. Data of fire incidents (Appendix-XXXIV)

10.5 Intelligence Gathering and Coordination

There is a perfect coordination with police. The staff will be trained intelligence gathering about wildlife crimes. The villagers also cooperate and convey the local staff if there is movement of any strange person in an around the reserve. It is proposed to establish secret fund for such work.

10.6 Security Plan: A detailed Security plan for Pench Tiger Reserve is attached in Appendix no. XLIV

CHAPTER XI - Eco-Tourism and Interpretation

Tourism though has last priority in the wildlife management it is an important activity in the reserve. PTR is visited by number of tourists because of its easy accessibility and a visibility of wild animals specially tigers.

Eco-Tourism Plan for Pench Tiger Reserve has been approved by the Local Advisory Committee established vide G.R. No WLP-2012/CN 309/F-1 dated 9/11/2012. The Tourism routes as per present uses cover distance of 136 km. in the CTH area and as per NTCA guidelines and G.R. WLP-2012/CN 309/F-1 dated 21/1/2013. This covers an area of 8.055 sq.km which covers 3.13% (Considering 20 mtr. on both sides of the tourism road). Mansinghdeo Sanctuary which is part of Buffer zone tourism routes have been identified in Chorbahuli Range which cover a length of 60 km. where tourism has commenced. After the other areas in the buffer area is developed tourism activity can gradually be shifted totally to the buffer area.

11.1 Organization Setup and Management

Presently there is no organized setup for eco-tourism and the available staff like forest guards, forest labourers and casual daily wage labourers manage the tourism. There is need of a post of Park Officer at Sillari who controls and supervise the tourists entries. Ghoti is the important gate which should have a special duty guard doing the job of issuing entry permits and recovering entry fees.

It is proposed to create a post of RFO as Tourism Development Officer with 3 Foresters, one each for Salama, Koltimara and Totladoh assisted by 2 forest guards each. The RFO will have a utility type vehicle at his command.

11.2 Determination of Carrying Capacity

Carrying Capacity will be calculated for Pench Tiger Reserve and it will be implemented.

11.3 Implementation of Eco-tourism Guidelines

Eco-tourism provides for sustainable management of the resource without putting any pressure on it. The tourists visiting the Park will be refrained from using polythene bags. The tourists resorts will also be advised to minimize the use of plastic bags etc. They will also be advised to use solar cookers, solar water heaters, solar lighting, etc. to reduce use of fossil fuels. They will also be advised to recycle the water and reduce use of water.

Eco-tourism also provides for involvement of local people and addressing their livelihoods. The local people get employment as tourists guides. They give information to tourists about forest and wildlife in the area and their importance. They also take care of maintaining the discipline in the tourists. Eco-development Committee (EDC) can be entrusted with this management of eco-tourism complex. Complete benefit can be given to EDC, with suitable guidelines. Responsibility for protection and maintenance can be shared by EDC in turn benefit can be given to the EDCs.

The local people can also get their livelihood by offering the tourists their local dishes. They have to be trained about the hygiene, presenting/packing the material they are offering.

The local people can also sell some handicrafts articles prepared by them. There is scope for preparing bamboo articles like caps; flower vases other woven articles as mementos.

Some tribal youths can also offer folk dances for the tourists camping at the camps.

11.4 Park Interpretation Programme

It is important to convert a tourist visiting the Park into eco-tourist. This is possible by interpretation programme. There is an interpretation centre at Sillari and Ambakhori and one Orientation center at Pipariya and one interpretation centre at Kolutmara are under construction where the guide will give information about the intricacies of forests and wildlife. Interpretation programme is also having the interpretation facility linked with good camping facility to provide in-depth awareness and interpretation input to the visitors and students. While staying in the 'Nature Awareness Centers', Visitors and Students can feel the Nature and get the first hand experience of wilderness and then can be the good ambassador of conservation. There are also books, leaflets and other information material developed for visitors with information about the Park and also the do's and don'ts.

Chapter XII - Miscellaneous Issues

12.1 Connectivity of Pench with other Tiger Reserves

There is proof that Pench is connected with Kanha National Park of M.P. One Tiger which was collared by Dr. Jhala at Kanha National Park was found in Pench National Park of Madhya Pradesh. There is no barrier between Pench Tiger Reserve of Madhya Pradesh and Pench Tiger Reserve of Maharashtra, hence there is every possibility of that Tiger being present in Pench Tiger Reserve of Maharashtra as it is not noticed in PTR of M.P. nowadays. Pench Tiger Reserve, M.P. is connected with Satpuda Tiger Reserve of M.P. Pench Tiger Reserve of Maharashtra is connected with Forest of Bhandara Division and Gondia Division via Mogarkasa, Lendzari etc. Pench Tiger Reserve of Maharashtra is also connected with Tadoba National Park through the Forest of Chimur-South Umrer Range-Ramtek Range-Deolapar Range with interruption of roads only. Thus connectivity of Pench Tiger Reserve, Maharashtra is well established and it is now a breeding ground for Tigers in Central India.

12.2 Wildlife Health Monitoring

As per S - 33-A of Wildlife (Protection) Act 1972 the livestock kept in or within 5 k.m of Sanctuary are required to be immunized and hence the cattle are vaccinated in regularly with the help of District Animal Husbandry officer, to insure the wild life from contracting any disease from cattle.

Fortunately there is no history of any major disease to wildlife in the area. Any suspicious death of wild animal is checked with the help of local veterinary officers.

i) Vaccination of Cattle

Vaccination of cattle of villages in an around the protected area is done to prevent the spread of any epidemics and no cattle is allowed to pass through the reserve unless they are vaccinated and a certificate issued by the competent Animal Husbandry Officer. Immunisation camps have been organised from time to time for domestic cattle through Zillah parishad, Nagpur in order to prevent the spread of foot and mouth diseases etc. to wildlife.

Abstract of Vaccination

Year	Number of villages (Within and outside protected area)	Number of cattle vaccinated
2001-2002	6	2185
2002-2003	15	2659
2003-2004	14	3017
2004-2005	17	3694
2005-2006	39	7477
2006-2007	52	14440

12.3 Mortality Survey

As mentioned above suspicious death of any wild animal is looked in to seriously the animal is got checked through local veterinary officer.

CHAPTER XIII - Organization, Administration and Budget

13.1 Tiger Steering Committee

The Wildlife (Protection) Amendment Act, 2006 No. 39 of 2006, dated 3rd September 2006 Chapter-IVB, Section 38U provides for constitution of steering committee by State Government for ensuring co-ordination monitoring, protection and conservation of tiger, co-predators and prey animals within the tiger range states.

- (a) The Chief Minister - Chairperson;
- (b) The Minister in-charge of Wild Life - Vice-Chairperson;
- (c) such number of official members not exceeding five including at least two Field Directors of tiger reserve or Director of National Park and one from the State Government's Departments dealing with tribal affairs;
- (d) Three experts or professionals having qualifications and experience in conservation of wild life of which at least one shall be from the field of tribal development;
- (e) Two members from the State's Tribal Advisory Council;
- (f) One representative each from State Government's Departments dealing with panchayati Raj and Social Justice and Empowerment;
- (g) Chief Wildlife Warden of the State is the Member- Secretary, ex officio

13.2 Tiger Conservation Foundation

The Wildlife (Protection) Amendment Act, 2006 No. 39 of 2006, dated 3rd September 2006 Chapter-IVB, Section 38X provides for establishment of tiger conservation foundation for tiger reserves within the State to facilitated and support their management for conservation of tiger and bio-diversity and to take initiatives in eco-development by involvement of people in such development process.

The tiger conservation foundation shall, interalia, have the following objectives:-

- (a) To facilities ecological, economic, social and cultural development in the tiger reserves;
- (b) To promote eco-tourism with the involvement of local stake-holder communities and provide support to safeguard the natural environment in the tiger reserves;
- (c) To facilitate the creation of, and or maintenance of, such assets as may be necessary for fulfilling the above said objectives;
- (d) To solicit technical, financial, social, legal and other support required for the activities of the foundation for achieving the above said objectives;
- (e) To augment and mobilise financial resources including recycling of entry and such other fees received in a tiger reserve, to foster stake-holder development and eco-tourism.
- (f) To support research, environmental education and training in the above related fields.

The foundation is a new institutional framework which can complement the tiger reserve management and liaison with various eco-development committees and their confederations apart from production sectors in the landscape. The Foundation should be registered under the relevant rules of the State as a Trust, and as prescribed in the guidelines, will have a State level Governing Body, apart from a field level executive committee under the Chairmanship of the Field Director with representatives of the eco-development committees as nominated by the Governing Body. The Foundation would act as a "non profit center" and as a "development agency" by increasing local participation. It can secure the tiger reserve from financial constraints by providing funding support through various sources: recycling of gate receipts, service charges, donations and the like. The Foundation, may undertake various activities related to mainstreaming of conservation: eco-development, staff welfare, visitor regulation, field research, facilitating Ecodevelopment committees for market access, conducting capacity building programs, ecotourism and Joint Forest Management.

Tiger conservation foundation for PTR Has been establish as per provision of Wildlife Protection Act section 38 V in the year 2010.

13.3 Co-ordination with Line Agencies / Other Departments

Coordination with following agencies is required for management.

1. **Revenue Department:** - For rehabilitation of villages co-ordination with Revenue Department is required. The Collector being at the helm of all the affairs at district level his help is required for rehabilitation

Different Departments like land records P.W.D., MSEDCL, Irrigation Department, Z.P. Health, Education, Tribal Development etc. is required during rehabilitation.

2. **Zillah parishad** :- Co-ordination with Zillah parishad is very important as many village development activities are taken up by Z.P. the works like provision of bio-gas are taken by Z.P. the works of vaccination and provision improved human health care are taken up by Z.P. Employment generation activities like sericulture, horticulture, bee-keeping, fisheries etc. are implemented by Z.P. Other activities like stall feeding water harvesting structures, soil and moisture conservation works are implemented by Zillah parishad.
3. **Police Department** :- For protection of the forest and wildlife coordination with Police Department is must. There is perfect co-ordination with the Police Department due to District Tiger Cell. This cell is leaded by Suprentendent of Police and the cell meets once in every month.
4. **Animal Husbandry Department** :- The co-ordination with Animal Husbandry department is required for vaccination of the cattle of inside and fringe villages. In case of death of animals in offence cases, unknown causes, sickness of animals etc. the post-mortem is required to be done to ascertain the cause of death. In such cases the help of local veterinary officer is required to be taken.
5. **Forest Department / F.D.C.M.:-** Co-ordination with Forest Department is required for patrolling in the fringe areas. Presently the Chief Conservator of Forests, Nagpur Circle, Nagpur is the coordinating the joint patrolling efforts. Forest Department and F.D.C.M. need carry out the work of fire fighting in the PTR Buffer Zone and hence co-ordination is required.

13.4 Staff Deployment

The present structure of Pench Tiger Reserve is not sufficient to manage the reserve efficiently. The number of beats is 25 for 257.26 Km. area which amount of 10 sq. km per beat. This is higher than the accepted norm of 7.5 Sq. Km. for Protected Area. GR.No. TRS 06/2001/219/f-6/8/05/2003 reorganization of the beats and rounds has been proposed (separately) this will amount to creation of 19 posts of Forest Guards and 6 post of Foresters.

The tourism is developing fast and to manage this establishment of complex at Sillari, Kolutmara have been proposed. These complexes will need proper supervision and hence a post of Forester each with 2 Forest Guards to assist him have been proposed. The Forest Guards will be appointed from the special duty guards but the post of 3 foresters will have to be created .The three entry gates will have 3 Forest Guards each round the clock. The forester Guards will also be drawn from present special duty foresters and guards.

The office of filed Director is not having the post of Deputy Director and office superintendent hence the post of Deputy Director and office superintendent is proposed. A post of Divisional Forest Officer Pench Tiger Reserve and Office Superintendent has been created in Sept. 2012.

AMENITIES TO STAFF:

The wildlife posting are considered as secondary and hence staff are not very keen to join wildlife wing. Some incentive like one step promotion to the staff may attract the staff. Presently the staff posted at Pench is not getting one step promotion, as it is not in Naxal prone area.

Presently the staff of Pench Reserve is posted at Head Quarters where there are no school facilities. The families of the staff are to be kept at from away place for schooling (HQs like Salama, Sillari, Pipariya, Kolutmara, Ghatpendhari, etc.) It is proposed to make a family accommodation for 20 families (Foresters, Forest Guards, and RFOs) are proposed. A school/ staff bus is also proposed for school going kids from the above places to the respective Tehsil place.

REWARDS :

Special rewards to staff for outstanding performance is proposed. This will be on case to case basis.

13.5 Fund Raising Strategies

- Funds for the management will be raised as per the guidelines for Tiger Conservation Foundation (TCF). The gate money will be used for development activities.
- Levy the Tiger conservation cess from the tourist can be a good source of fund.
- Donations from the various NGOs and other institution promoting tiger conservation can be good source of funds.
- It is proposed to use the money received from sale of seized timber etc. for eco-development activities of villages.
- Section 29 and Section 35(6) of Wildlife (Protection) Act, 1972 provides for removal of any forest produce for the habitat management of wildlife. If there is any such removal occurs as per the rule and without contravening the existing rulings of Supreme court such produce shall be used for meeting *bonafide* needs

of the people leaving in an around the Pench Tiger Project.

13.6 Schedule of Operations

1. Rehabilitation of Villages
2. 1/5 Boundary demarcation
3. Proposed roads
4. Proposed buildings
5. Proposed works of creation of water sources.
6. Proposed meadow development in forests.
7. Proposed meadow development in evicted village
8. Proposed soil and moisture conservation works.
9. Clearing fire lines of trees.

13.7 Activity Budget

The budget for implementation of Tiger Conservation Plan comes from three sources.

1. Government of India Centrally Sponsored Scheme Project Tiger from NTCA.
2. State Government Plan Scheme like Eco development etc.
3. District funds like DPDC, TSP etc
4. State Government Non-plan Funds.

The details of activity budget to implement the prescription of the Tiger Conservation Plan for Ten Years is given in Appendix No. LXII.

CHAPTER – XIV - Monitoring and Evaluation

Monitoring and evaluation of the activity is an important part of any plan for further improvement. The following criteria are prescribed for monitoring and evaluation of the activities proposed in this plan.

14.1 Criteria

The criteria of monitoring and evaluation are of 2 types.

- 1) Physical
- 2) Qualitative

The physical criteria consist of completion of physical activity of any work e.g. Creation of a meadow or a water source is a physical criteria. However the durability of the meadow or the retention of water in water source and use of the meadow by herbivore or the use of water source by wild animals is the qualitative criteria. The physical criteria are thus a mechanical activity while the qualitative criteria need a close observation for over a time period.

14.2 Process

The control forms for the different activities forms the process of monitoring and evaluation of the work. The control forms are for following activities.

- 1) 1/5 boundary demarcation
- 2) Fire protection
- 3) Water sources and their distribution.
- 4) Habitat improvement
- 5) Animal diseases
- 6) Soil and moisture conservation
- 7) Illicit cutting.
- 8) Crop damage
- 9) Eco-development works
- 10) Animal count (Estimation)

Control forms will be prepared in three sets and two sets will be sent to Additional Principal Chief Conservator of Forests (Wildlife), Nagpur up to 30th September each year for onward submission to the Chief Wildlife Warden, Maharashtra State, Nagpur.

Compartment histories will also be maintained in the forms given as Appendix. R.F.O. will fill the compartment history in two copies and after the scrutiny by Assistant Conservator of Forests will be submitted to Field Director. One copy of this will be returned to the Range Forest Officer.

14.3 Divisional Note Book

Some important events will be recorded in divisional notebook. This will include arrival of winter water fowl at various wetlands, water availability in pinch period, status of health of wild animal, fire damages, poaching of wild animals, etc.

14.4 Impact Assesment on Plan Implementation:-

Mid term assessment of the plan implementation should be done invariably. Activites as per the various themes should be evaluated so that future management can be decided. Findings should be put on record and inferences drawn also mentioned.

Deviations if recommended should be put down in proposal form and informed to the Chief Wildlife Wardern for approval.

REFERENCES:

- **Management Plan of Pench Tiger Reserve by Shri S. B. Banubakude and Shri Dhamge for the period 2000-01 to 2010-11**
- **Management Plan of Nagpur Project Division of F.D.C.M. Ltd. by Shri Rathod.**
- **Working Plan of Nagpur Forest Division by Shri Jarnail Singh IFS & S. S.Mishra IFS.**
- **Working Plan of Bhandara Division**
- **Working Plan of Gondia Division**
- **Management Plan of Nagzira Wildlife Sanctuary**
- **Faunal Diversity of Tiger Reserves in India (Vol. I) Compiled & Edited by J.R.B.Alfred, Ramakrishna and Rajesh Gopal -2006**
- **Floristic Diversity of Tiger Reserve of India Edited by M.Sanjappa, D.K.Singh, Paramjit Singh and Rajesh Gopal -2008**
- **Monitoring Tigers, Co –predators, Prey and Their Habitats by Y.Jhala, Qamar Qureshi, Rajesh Gopal and Rajan Amin -2009, Published by WII, Dehradun and NTCA, New Delhi**
- **Guidelines for preparation of Tiger Conservation Plan. A technical document of the National Tiger Conservation Authority, Ministry of Environment and Forests,**
- **Government of India. NTCA/01/07 by Rajesh Gopal, Sinha P. R., Mathur V. B., Jhala Y. V. and Q. Qureshi. 2007.**

APPENDIX - I

**NOTIFICATION OF PENCH NATIONAL PARK
REVENUE AND FORESTS DEPARTMENT**

Mantralaya, Bombay 400 032, dated 22nd November, 1975

WILDLIFE (PROTECTION) ACT, 1972

No. PGS. 1375/121758-F-1 -- Whereas it appears to the Government of Maharashtra that the area specified in the Schedule appended hereto (hereinafter referred to as "the said area") is by reason of its ecological, faunal and floral importance, needed to be constituted as a National Park for the purpose of protecting, propagating or developing wildlife therein or its environment.

Now therefore, in exercise of the powers conferred by sub-sections (1) and (2) of section 35 of the Wildlife (Protection) Act, 1972 (53 of 1972) this Government of Maharashtra hereby declares its intention to constitute the said area as a National Park, and defines the limits thereof, as set out in the Schedule appended hereto.

SCHEDULE

Situation and limits of Pench National Park, Nagpur Division.

1. Names of the Forest Range including in the National Park : Deolapar and Khapa
2. Names of the villages and forest compartments included in the National Park :
 - i. Reserved Forest Comptt. Nos. 511, 531 to – 521 part Mouza, Bodalzira, 552, 561 to 564, 565 Mouza Phulzari 566 to 575, 661 To 694
 - ii. Mouza Bodalzira (part of comptt. No. 521 admeasuring 49.31 hactre)
 - iii. Protected Forest of Ghatpendhari village

FOREST SURVEY NUMBERS : AREA (ha.)

1/1	8.692
9/1	5.746
9/11	0.060
20/1	18.400
22/1	10.230
28/1	10.133
111/1	59.941
117	3.217
1/6	1.497
111/2	0.509
102/2	0.420
Total	118.845

- iii. Area of National Park : 257.26 Sq.km
- iv. Boundaries of the :
 - On the North** – Madhya Pradesh State
Boundary National Park
 - On the East** – Comptt. Nos. 510, 512, 506
Bakhari Comptt. Nos. 576, 577, Khapa, Sillari
Pipariya
 - On the South** – Ghoti, Momagaon, Tuyapar
Comptt. Nos. 560, 554, 553 Mouza, Kirangisarra,
Kolitmara, Surera, Narhar & Dhawlapur
 - On the West** - Comptt. Nos. 659, 660, 697, 694

By order and in the name of Governor of Maharashtra

(I.M. Qureshi)
Deputy Secretary to
Government

Note :- Subsequently vide corrigendum dated 13th December 1975, the total of the areas of forest survey nos. as shown under (iii) was corrected to 118.845 ha. from 118.245 ha.

APPENDIX - II
GOVERNMENT OF INDIA'S ORDER DECLARING PENCH TIGER RESERVE

F-No. 1-1/96-PT
Government of India
Ministry of Environment & Forests
(PROJECTOR TIGER)

Annexe No. 5, Bikaner House
Sahajahan Road, New Delhi-110011
Dated 18th Jan. 1999

To,
The Chief Wildlife Warden,
Government of Maharashtra,
Civil Lines, Nagpur

Subject: Establishment of PENCH Tiger Reserve, Nagpur District in Maharashtra.

Sir,

I am directed to convey the approval of the Government of India for establishment of PENCH Tiger Reserve under the Centrally Sponsored Scheme "Project Tiger" over 257.26 sq.km. area of existing PENCH National Park in District Nagpur, Maharashtra as per proposal received from the State Government of Maharashtra vide their letter No. D-23(5)/C. N. 543/2531/98-99 dated 10th November 1998. The entire area of the designated PENCH Tiger Reserve under "Project Tiger" shall be placed under the unified control of a Field Director and the name and bio-data of the incumbent for the post may be sent to this Ministry for approval. A copy of the Guidelines for execution of the "Project Tiger" by the State is enclosed for your guidance.

The Government of India will provide 50% financial assistance for approved recurring items and 100% financial assistance for non-recurring items with the condition that the entire cost of salary of the staff employed in the Reserve will be borne by the State Government.

For posting and transfer of the Field Director, a prior approval of Government of India will be obtained by the State Government.

The State Government of Maharashtra issue notification declaring PENCH as Tiger Reserve under "Project Tiger Scheme" and a copy of the same be sent to this office.

The guidelines on Project Tiger issued by the MoEF from time to time will have to be adhered to.

Encl.: As above.

Yours faithfully,

Sd/-

(ANOOP BADHWA)

JOINT DIRECTOR, PROJECT TIGER

APPENDIX -III

**GOVERNMENT OF MAHARASHTRA'S ORDER DECLARING
PENCH TIGER RESERVE
GOVERNMENT OF MAHARASHTRA**

Revenue and Forests Department
Mantralaya, Mumbai - 400 032.
Resolution No. WLP-1095/CR-11-F-1
Dated : 23rd February, 1999

- READ : 1) Letter of Chief Conservator of Forests (Wildlife) No. D-23(A)/C.No. 543/2322/98-99, dated 14th October, 1998
2) Letter of Chief Conservator of Forests (Wildlife) No. D-23(A)/C.N. 543/2532/98-99, dated 10th November, 1998
3) Government letter of even number dated 14th January, 1999.
4) Letter of Joint Director, Project Tiger, Government of India, Ministry of Environment and Forests No. 1-1/96-PT, dated 18th January, 1999.

RESOLUTION

The Government of India has communicated its approval to the declaration of Pench Tiger Reserve comprising of the areas (257.26 sq.km.) of existing Pench National Park as the third Tiger Reserve in the State under Project Tiger subject to certain conditions vide its letter referred to at Sr.No. 4. The Government of India will provide 50% financial assistance for approved recurring items and 100% financial assistance for non-recurring items with the condition that the entire cost of salary of the staff employed in the Reserve will be born by the State Government. The Government of Maharashtra is now please to declare the area constituted by the Pench National Park as the third Tiger Reserve in the State under Project Tiger

2. The Government is also pleased to designate the Conservator of Forests (Wildlife) Nagpur as ex-officio Field Director of the Pench Tiger Reserve.

By order and in the name of the Governor of Maharashtra.

Sd/-
(V.R. Tiwari)
Officer on Special Duty
Revenue and Forests
Department

APPENDIX-IV
NOTIFICATION

APPENDIX-IV

असा. क्र. १२

रजिस्टर्ड नं. एमएच/एमआर/साऊथ-२२९/२००६-०८



महाराष्ट्र शासन राजपत्र

असाधारण

प्राधिकृत प्रकाशन

बुधवार, जानेवारी २३, २००८/माघ ३, शके १९२९

स्वतंत्र संकलन म्हणून फाईल करण्यासाठी या भागाला वेगळे पृष्ठ क्रमांक दिले आहेत.

भाग चार-अ

महाराष्ट्र शासनाने केंद्रीय अधिनियमान्वये तयार केलेले (भाग एक, एक-अ आणि एक-ल यांमध्ये प्रसिद्ध केलेले नियम व आदेश बाब्यतिरिक्त) नियम व आदेश.

REVENUE AND FORESTS DEPARTMENT
Mantralaya, Mumbai 400 032, dated the 27th December 2007

NOTIFICATION

WILDLIFE (PROTECTION) ACT, 1972.

No. WLP. 10-07/C.R. 297/F-1.—Whereas, the National Tiger Conservation Authority, (NTCA), vide its letter No. 1501/11/2007-BT (Part), dated the November 16, 2007, had requested the State Government to declare critical tiger habitats in the Tiger Reserves under section 38 (V) of the Wildlife (Protection) Act, 1972 (53 of 1972), and, whereas vide his letter No. Desk. 22(6)/2007-08/6149, dated the 4th December 2007, addressed to Member-Secretary, NTCA, the Principal Chief Conservator

(४१)

भाग चार-अ-१२

[किंमत : रुपये ७.००]

of Forests (Wildlife) and Chief Wildlife Warden, Maharashtra State, had submitted a proposal in this behalf, and whereas, the Member-Secretary, NTCA, *vide* his letter No. F.No. 1501/1/2007-PT (part), dated the 14th December 2007, addressed to the Principal Chief Conservator of Forests (Wildlife), has granted his approval thereto, and whereas, the Principal Chief Conservator of Forests (Wildlife) had *vide* his letter No. Desk.-22 (6)/2007-08/6259, dated the 17th December 2007, submitted a proposal to the State Government.

Now, therefore, in exercise of the powers conferred under section 38(V) of the Wildlife (Protection) Act, 1972 (53 of 1972), Government of Maharashtra hereby notifies the following areas of the national parks and sanctuaries comprising the Tadoba Andhari Tiger Reserve, Pench Tiger Reserve and Melghat Tiger Reserve (including its buffer protected areas of Narnala, Wan and Ambabarwa sanctuaries) as 'Critical Tiger Habitats.'

Tiger Reserve and its Constituent National Parks/Sanctuaries	Area (Sq.kms)	Notification Nos.
1 <i>Tadoba Andhari Tiger Reserve</i>		
(1) Tadoba NP	116.55	Madhya Pradesh Act No. VII of 1955
(2) Andhari WLS	509.27	No. WLP.1085/CR-75/F-5 (III), dated 25th February 1986.
Total for Tadoba-Andhari Reserve	625.82	
2 <i>Pench Tiger Reserve</i>		
(1) Pench NP	257.26	No. PGS. 1375/121758/F-1, dated 22nd November 1975.
Total for Pench Tiger Reserve	257.26	
3 <i>Melghat Tiger Reserve</i>		
(1) Gugamal NP	1150.03	No. WLP. 1092/Pra. No. 526/F-5, dated 15th February 1994.
(2) Melghat WLS		No. WLP.1096/CR-279/F-1, dated 2nd May 1997.
(3) Narnala WLS	12.35	

भाग चार-अ] महाराष्ट्र शासन राजपत्र, असा., जानेवारी २३, २००८/माघ ३, शके १९२९ ४३

Tiger Reserve and its Constituent National Parks/Sanctuaries	Area (Sq.kms)	Notification Nos.
(4) Ambabarawa WLS	127.11	No.WLP.1094/CR-123/F-1, dated 9th April 1997.
(5) Wan WLS	211.00	(1) No. WLP. 1097/CR-5/F-1, dated 28th July 1997. (5.14 Sq.Km.) (2) No. WLP 1097/CR-5/F-1, dated 29th July 1997. (205.86 Sq.Km.).
Total for Melghat TR	1500.49	

By order and in the name of the Governor of Maharashtra,

J. P. DANGE,
Additional Chief Secretary
to Government.

शासकीय मध्यवर्ती मुद्रणालय, मुंबई

APPENDIX – V

AREA STATEMENT OF PENCH NATIONAL PARK

Range	Round	Beat	Comptt. No.	Area (Ha)	Legal Status		
East Pench	I. Salama	1. East Chikhalkhari	511	384.498	RF		
			513	358.956	RF		
					743.454		
		2. East Kutumba	514	337.508	RF		
			515	326.581	RF		
					664.089		
		3. West Chikhalkhari	517	304.486	RF		
			518	283.685	RF		
					585.171		
		4. North Bodalzira	519	309.180	RF		
			520	168.754	RF		
			521	193.440	RF		
			522	247.550	RF		
					918.924		
		5. Central Bodalzira	523	222.066	RF		
			524	282.066	RF		
			525	299.872	RF		
			526	303.100	RF		
					1107.114		
		6. South Bodalzira	527	237.076	RF		
			528	285.708	RF		
			530	305.943	RF		
					828.727		
		7. West Kutumba	516	312.013	RF		
			529	307.561	RF		
			531	307.966	RF		
					927.540		
		8. North Salama	532	226.624	RF		
			533	289.350	RF		
			534	280.042	RF		
			574	161.081	RF		
			575	185.346	RF		
					1142.450		
		9. South Salama	535	273.163	RF		
			536	265.474	RF		
			540	265.474	RF		
					804.111		
		10. Totladoh	537	263.450	RF		
			538	267.013	RF		
			539	268.307	RF		
					798.770		
					TOTAL	8522.350	

Range	Round	Beat	Comptt.No.	Area (Ha)	Legal Status		
East PENCH	II. Sillari	1. North Fulzari	541	271.514	RF		
			542	241.193	RF		
			543	353.291	RF		
						865.998	
		2. South Fulzari	545	290.969	RF		
			546	281.256	RF		
			547	26.304	RF		
			548	272.758	RF		
			549	191.012	RF		
					1062.299		
		3. North Kirangisarra	550	232.694	RF		
			551	300.277	RF		
			552	274.377	RF		
				807.348			
		4. Tuyapar	561	204.771	RF		
			562	244.430	RF		
			563	271.949	RF		
			564	292.992	RF		
				1014.142			
		5. Pipariya	566	171.577	RF		
			567	277.210	RF		
			568	284.089	RF		
				732.876			
		6. Central Fulzari	544	314.441	RF		
			565	139.616	RF		
			570	269.236	RF		
				723.293			
		7. North Sillari	569	261.831	RF		
			571	295.016	RF		
			572	272.758	RF		
			573	277.210	RF		
		1106.815					
		6312.771					
		Total of East PENCH Range		14835.121			

Range	Round	Beat	Comptt. No.	Area (Ha)	Legal Status	
West Pench	Ghatpendhari	1. South Ghatpendhari	671	397.401	RF	
			672	341.555	RF	
			673	246.453	RF	
			679	318.488	RF	
			681	308.371	RF	
		2. East Ghatpendhari		1612.268		
			674	270.330	RF	
			675	273.972	RF	
			676	363.194	RF	
			677	273.972	RF	
		3. Narhar		227 PF	118.845	PF
				1300.313		
			661	531.769	RF	
			662	363.408	RF	
			663	357.337	RF	
		4. Surera		664	347.220	RF
				687	280.447	RF
				692	231.885	RF
				2112.066		
				665	256.571	RF
		5. Kolitmara		666	321.320	RF
				667	358.551	RF
				683	369.883	RF
				1306.325		
				668	283.280	RF
		6. West Ghatpendhari		669	301.491	RF
				670	307.156	RF
				682	205.580	RF
				1097.507		
				678	242.811	RF
		6. Ghorad		680	369.073	RF
				684	286.517	RF
				685	342.364	RF
				1240.765		
				686	415.612	RF
		7. Amti		688	358.147	RF
				689	239.879	RF
				690	293.397	RF
				1307.135		
	691		317.678	RF		
	693	267.497	RF			
	694	329.414	RF			
			914.589			
Total of West Pench Range				10890.968		

Details of Protected Forest of Compartment No. 227

Protected Forest Comptt. No. (Ha)	Forest Area Survey
1/1	8.692
9/1	5.746
9/11/	0.060
20/1	18.400
22/1	10.230
23/1	10.133
111/1	59.941
117	3.217
1/6	1.497
111/2	0.509
102/2	0.420
Total	118.845

ABSTRACT

Range	Round	Beat	Comptt. No.	Area (ha)	
A. East Pench	I. Salama	1. East Chikhalkhari	2	743.545	
		2. East Kutumba	2	664.089	
		3. West Chikhalkhari	2	585.171	
		4. North Bodalzira	4	918.924	
		5. Central Bodalzira	4	1107.114	
		6. South Bodalzira	6	828.727	
		7. West Kutumba	3	927.540	
		8. North Salama	5	1144.450	
		8. South Salama	3	804.111	
		9. Totladoh	3	798.770	
		Total 10	31	8522.350	
				85.22 sq.km.	
		II. Sillari	1. North Fulzari	3	865.998
			2. South Fulzari	5	1062.299
			3. North Kirangisara	3	807.348
			4. Tuyapar	4	1014.142
			5. Pipariya	3	732.876
			6. Central Fulzari	3	723.293
			7. North Sillari	4	1106.815
		Total 17	25	6312.771	
			63.12 sq.km.		
		Total of East Pench	56	(14835.121)	
				148.35 sq.km	
B) West Pench	I. Ghatpendhari	1. South Ghatpendhari	5	1612.268	
		2. East Ghatpendhari	5 PF	1300.313	
		3. West Ghatpendhari	4	1240.765	
		4. Ghorad	4	1307.135	
		5. Amti	3	914.581	
		6. Narhar	6	2112.066	
		7. Surera	4	1306.325	
		8. Kolitmara	4	1097.507	
		Total of West Pench 8	35	10890.968	
			108.90 sq.km		
Total of P.A.		25	91	25726.089	
				257.26 sq.km	

APPENDIX – VI
FLORISTIC COMPOSITION OF PENCH NATIONAL PARK

Local Name	Botanical Name
Achar	<i>Buchanania lanzan</i>
Amaltas/Bahawa	<i>Cassia fistula</i>
Anjan	<i>Hardwickia binnata</i>
Apta/Kachnar	<i>Bauhinia racemosa</i>
Aonla	<i>Emblica officinalis</i>
Aran	<i>Cassine glauca</i>
Arjun/kahu	<i>Terminalia arjuna</i>
Babul	<i>Acacia nilotica</i>
Bad/wad	<i>Ficus benghalensis</i>
Bel	<i>Aegle marmelos</i>
Bhirra	<i>Choloroxylon swietenia</i>
Bhormal	<i>Hymenodictyon excelsum</i>
Biba/Bhilwa	<i>Semecarpus anacardium</i>
Bija	<i>Pterocarpus marsupium</i>
Bistendu	<i>Diospyros montana</i>
Bor/Ber	<i>Zizyphus mauritiana</i>
Chandan	<i>Santalum album</i>
Chichwa	<i>Albizzia odoratissima</i>
Datrange	<i>Ehretia laevis</i>
Dhaman	<i>Grewia tiliaefolia</i>
Dhaora/dhawada	<i>Anogeissus latifolia</i>
Dhoban	<i>Dalbergia paniculata</i>
Dikamali	<i>Gardenia resinifera</i>
Garari	<i>Cleistanthuscollinus</i>
Ghorar/papda	<i>Gardenia latifolia</i>
Ghoti/Ghot	<i>Zinzyphus glaberrima</i>
Gogal/Ghongal	<i>Cochlospermum religiosum</i>
Haldu	<i>Adina cardifolia</i>
Hiwar	<i>Acacia leucophloea</i>
Hirda/Harra	<i>Terminalia chebula</i>
Iml/Chincha	<i>Tamarindus indica</i>
Jambhul/Jamun	<i>Syzygium cumini</i>
Kalakarai	<i>Casearia elliptica</i>
Kakad	<i>Guruga pinnata</i>
Kakai	<i>Flacourtia indica</i>
Karai	<i>Miliusa velutina</i>
Karam	<i>Mitragyna parviflora</i>
Karanj	<i>Pongamia pinnata</i>
Karsawad/Semal	<i>Bombax ceiba</i>

Kashid	<i>Cassia siamea</i>
Kateyen	<i>Bridelia retusa</i>
Keshaw/Kaju	<i>Anacardium occidentale</i>
Khair	<i>Acacia catechu</i>
Khirmi	<i>Manikara hexandra</i>
Kullu	<i>Sterculia urens</i>
Kumbhi	<i>Careya arborea</i>
Kusum	<i>Schleichera oleosa</i>
Lendia/Lenda	<i>Largestroemia parviflora</i>
Kokhandi	<i>Ixora parviflora</i>
Maharukh	<i>Ailanthus excelsa</i>
Medsing	<i>Dolichandrone falcata</i>
Moha/Mahuwa	<i>Madhuca longifolia</i>
Mokha	<i>Schrebera swietenoides</i>
Moyen/Mowai	<i>Lannea coromandelica</i>
Neem	<i>Azadirachta indica</i>
Padar	<i>Stereospermum suaveolens</i>
Palas	<i>Butea monosperma</i>
Pangara	<i>Erythrina variegata</i>
Rohan	<i>Soymida febrifuga</i>
Sag/Sagwan	<i>Tectona grandis</i>
Saja/Ain	<i>Terminalia tomentosa</i>
Salai	<i>Boswellia serrata</i>
Shisham	<i>Dalbaergia latifolia</i>
Siwan	<i>Gmelina arborea</i>
Siras (black)	<i>Albizzia lebback</i>
Siras (White)	<i>Albizzia procera</i>
Sitaphal	<i>Annona squamosa</i>
Subabul	<i>Leucaena leucocephala</i>
Tendu	<i>Diospyros melanoxylon</i>
Tiwas/Tinsa	<i>Ougennia oogeinensis</i>
Umber	<i>Ficus racemosa</i>
Warang/Baranga	<i>Kydia calycina</i>
White Kada/Satkuda	<i>Holarrhena pubescens</i>
B. Shrubs	
Aal	<i>Moringa citrifolia</i>
Bharati	<i>Marytenus emarginata</i>
Bhawarmal	<i>Hamiltonia suavaeolens</i>
Dudhi/Kalakudaa	<i>Wrightia tinctoria</i>
Gaturli	<i>Grewia hirsuta</i>
Ghaneri/Ulta Rawan	<i>Lantana camera</i>
Jibuli/Jibili	<i>Woodfordia fruticosa</i>
Kaladhotra	<i>Datura metel</i>
Katekorati	<i>Barleria prinoites</i>
Katambar	<i>Ficus hispida</i>
Kharata	<i>Dodonea viscosa</i>
Kharasani/Kharasi	<i>Nyctanthes arbortiristis</i>
Murad sheng/marorphed/kuda	<i>Helicteres isora</i>
Neel	<i>Indigofera tinctoria</i>
Nirgudi	<i>Vitex nigundo</i>
Phetra (Safed)	<i>Gardenia turgida</i>
Rui	<i>Calotropis procera</i>
Sindhi/Chhindi	<i>Phoenix sylevestris</i>
Wagnakhi	<i>Martynia annua</i>

<p>A. Herbs</p> <p>Divali Gajargawat Goakru Hamata Kamarmodi Pivla Dhotra Pivili Tilwan Rantulsi Rantur Scabra Tarpata</p> <p>B. Grasses and bamboos</p> <p>Bans/Bamboo Bhurbhusi Dab/Dabat/Phylya Diwartan Durwa/Hariyalli/Doob Gadasheda Ghonyad Fuler Katanbahari/Kusara Katang bamboo Kusal Marvel (small) Marvel (big) Mushan Paonya Phulkia Sabai or sum Sheda Tikhadi</p> <p>C. Climbers</p> <p>Aradphan Bandha Chilati Dhimarvel/Malkagni Dudhi/Bokadvel/Nagvael Eroni Gunj Gulvel Kajkuri Khadyanag/Langali Khobarvel Mahulbel Nasbel Papri (Lalbel) Palasvel Piwarvel Ramdaton</p>	<p><i>Tephrosia hamiltonii</i> <i>Parthenium hysterophorus</i> <i>Tribulus terrestris</i> <i>Stylosanthes hamata</i> <i>Tridax procumbens</i> <i>Argemone mexicana</i> <i>Cleome viscosa</i> <i>Hyptis suaveolus</i> <i>Atylosia scarabaeoides</i> <i>Stylosanthes scabra</i> <i>Cassia tora</i></p> <p><i>Dendrocalamus strictus</i> <i>Eragrostis tenalla</i> <i>Imperata cylindrica</i> <i>Andropogon pumilus</i> <i>Cynodon dactylon</i> <i>Chrysopogon fulvas</i> <i>Themeda quadrivalvis</i> <i>Arundinella setosa</i> <i>Aristida funiculata</i> <i>Bambusa arundinacea</i> <i>Heteropogon controtus</i> <i>Dichanthium annulatum</i> <i>Dichanthium aristantum</i> <i>Iseilema laxum</i> <i>Schima sulcatus</i> <i>Apluda mutica</i> <i>Iscaemum angustifolium</i> <i>Schima nervosum</i> <i>Cymbopogon martini</i></p> <p><i>Olax scandens</i> <i>Dendrophoe falcata</i> <i>Mimosa hamata</i> <i>Celastirus particulata</i> <i>Cryptolepis buchanandi</i> <i>Ziziphus oenoplia</i> <i>Abrus precatorius</i> <i>Tinospora cordifolia</i> <i>Mucuna pruriens</i> <i>Gloriosa superba</i> <i>Hemidesmus indicus</i> <i>Bauhinia vahli</i> <i>Millettia auriculata</i> <i>Ventilago denticulata</i> <i>Butea superba</i> <i>Combretum ovvalifolium</i> <i>Smilax macrophylla</i></p> <p>--</p>
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Ragatpapda Vasanvael D. parasites Amarvel E. Epiphytes Vanda Bandgul Vandha	<i>Cocculus hirsutus</i> <i>Cuscuta reflexa</i> <i>Vanda sellata</i> <i>Dendrophoe falcata</i> <i>Viscum nepalensis</i>
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APPENDIX – VII

Establishment of Tiger Conservation Foundation for three Tiger Reserves in the State.

APPENDIX-VII

Establishment of Tiger Conservation
Foundation for three Tiger Reserves in
the State.

Government of Maharashtra
Revenue & Forest Department
Government Resolution No.WLP 10-08/CR- 19 /F-1
Mantralaya, Mumbai-400032.

Dated:- 21 / 08 /2008.

- Read:-
- 1) Government of India, Ministry of Environment & Forests,
Notification No. S.O 1008 (E), Dated: 22.6.2007.
 - 2) Principal Chief Conservator of Forests (Wildlife) Maharashtra
State, Nagpur's letter No. 23(2)/Survey/2007-08/6659
Dated: 24th January, 2008.

Background:-

In Maharashtra there are three Tiger Reserves namely, Melghat, Tadoba-Andhari and Pench. As per section 38 X of the Wildlife (Protection) Act 1972, the State Government is required to establish a Tiger Conservation Foundation for Tiger Reserves in order to facilitate and support their management for conservation of tiger and biodiversity and to take initiatives in eco development by involvement of people in such development process. Accordingly the Government of India, Ministry of Environment & Forests vide its notification referred above has issued detailed guidelines for the purpose of Regulation of Tiger Conservation Foundation. Based on the said guidelines the Principal Chief Conservator of Forests (Wildlife) Maharashtra State, Nagpur vide his letter referred above has submitted a proposal for establishment of Tiger Conservation Foundation for each of the three Tiger Reserves.

The proposal submitted by the Principal Chief Conservator of Forests (Wildlife) Maharashtra State, Nagpur was under the consideration of the Government. The Government of Maharashtra hereby resolves as follows.

Government Resolution:-

The Government of Maharashtra accords its approval for establishment of Tiger Conservation Foundation for each of the three Tiger Reserves namely Melghat Tiger Reserves, Tadoba-Andhari Tiger Reserve and Pench Tiger Reserve. Each foundation shall be registered under Bombay Public Trust Act, 1950. The Trust deeds for the three foundations are appended herewith.

By order and in the name of the Governor of Maharashtra.

(J. P. Dange)

Additional Chief Secretary,
Revenue & Forest Department.

Handwritten notes and stamps in the left margin, including a date stamp "22/08/08" and a signature.

- To
- Private Secretary to Minister (Forest), Govt. of Maharashtra, Mantralaya, Mumbai-400032.
 - Add. Chief Secretary (Forests), Govt. of Maharashtra, Mantralaya, Mumbai-400032.
 - Chief Wildlife Warden & Principal Chief Conservator of Forests (Wildlife) M. S, Nagpur.

D:\2008\Tiger Conservation Foundation\New Tiger Conservation Foundation\Pench Tiger Reserve Conservation 123.doc

Principal Chief Conservator of Forests, M.S., Nagpur.

Managing Director, Forest Development Corporation Ltd., M.S., Nagpur

Additional Principal Chief Conservator of Forests (Budget, Planning & Development), Nagpur.

Chief Conservator of Forests, (Wildlife), Nagpur.

Chief Conservator of Forests, Amravati.

Chief Conservator of Forests, Nagpur.

Conservator of Forests, North Chandrapur Circle, Chandrapur.

Chief Conservator of Forests, (Wildlife Administration), Nagpur.

Chief Conservator of Forests, (Protection), Nagpur

Field Director, Melghat Tiger Reserve, Amravati.

Field Director, Pench Tiger Reserve, Nagpur

Field Director, Tadoba Andhari Tiger Reserve, Chandrapur.

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Establishment of Tiger Conservation
Foundation for three Tiger Reserves
in the State.

Government of Maharashtra
Revenue & Forest Department
Government Resolution No. WLP 10-08/CR- 19 /F-1
Mantralaya, Mumbai-400032.
Dated:- 05.05.2010.

- Read:-**
- 1) Government of India, Ministry of Environment & Forests,
Notification No. S.O 1008 (E), Dated: 22.6.2007.
 - 2) Government Resolution No. WLP 10-08/CR- 19 /F-1, Dated 21.8.2008.
 - 3) Government Letter No. WLP 10-08/CR- 19 /F-1, Dated 4.11.2009..

Background:-

The Government of Maharashtra has accorded its approval for establishment of Tiger Conservation Foundation and to register foundation under Bombay Public Trust Act, 1950 for each of the three Tiger Reserves namely Melghat Tiger Reserve, Tadoba-Andhari Tiger Reserve and Pench Tiger Reserve vide Government Resolution dated 21.8.2008 referred above.

Government Resolution:-

Now, in view of the decisions taken in the meeting held on 26.8.2009 of the governing bodies of the three Tiger Reserves namely Melghat Tiger Reserve, Tadoba-Andhari Tiger Reserve and Pench Tiger Reserve the Government hereby accords sanction according to the provision of section 6(c) of the deed of each Tiger Conservation Foundation for the change in the governing body of the three tiger reserves and accordingly to modify the deed registered before the Charity Commissioner.

The Governing body of each of the tiger reserve will now be as follows :-

1) The Governing body of the Pench Tiger Reserve Conservation Foundation shall consist of the following members namely:-

- | | | |
|-----|--|----------------|
| 1. | Hon'ble Minister (Forests), Govt. of Maharashtra: | President |
| 2. | Add. Chief Secretary (Forests), Government of Maharashtra: | Vice President |
| 3. | Principal Chief Conservator of Forests , MS, Nagpur: | Member |
| 4. | Chief Conservator of Forests (Wildlife) Nagpur: | Member |
| 5. | Field Director, Pench National Park and Tiger Reserve, Nagpur: | Member |
| 6. | Deputy Director/ ACF Pench: | Member |
| 7. | One nominee of BNHS, Mumbai: | Member |
| 8. | One nominee of Wildlife Institute of India Dehradun: | Member |
| 9. | Member of Legislative Assembly, Ramtek: | Member |
| 10. | Member of Legislative Assembly, Saoner: | Member |

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- | | | |
|-----|--|------------------|
| 11. | Representative of Zilla Parishad, Nagpur: | Member |
| 12. | Representative of Eco-development Committee, Sillari: | Member |
| 13. | Chairman of Eco-development committee, Koltimara: | Member |
| 14. | Sarpanch of one Grampanchayat within the jurisdiction of Pench Tiger Reserve | Member |
| 15. | Chief Wildlife Warden and Principal Chief Conservator of Forests (Wildlife) M.S. Nagpur: | Member-Secretary |

II) The Governing body of the Melghat Tiger Reserve Conservation Foundation shall consist of the following members namely:-

- | | | |
|-----|--|-------------------|
| 1) | Hon'ble Minister (Forests), Govt. of Maharashtra | President |
| 2) | Add. Chief Secretary (Forests), Government of Maharashtra: | Vice President |
| 3) | Principal Chief Conservator of Forests, MS, Nagpur. | Member |
| 4) | Field Director, Melghat Tiger Reserve, Amravati. | Member |
| 5) | Deputy Conservator of Forests MTR Sipna WL Dn. | Member |
| 6) | Deputy Conservator of Forests, MTR Gugamal WL Dn | Member |
| 7) | Deputy Conservator of Forests, WL Dn. Akot WL Dn. | Member |
| 8) | Representative of BNHS Mumbai | Member |
| 9) | Representative of WII Dehra Dun. | Member |
| 10) | Member of Legislative Assembly, Melghat | Member |
| 11) | Member of Legislative Assembly, Akot | Member |
| 12) | Representative of Zilla Parishad, Amravati | Member |
| 13) | Representative of Zilla Parishad, Akola | Member |
| 14) | Member Eco Development Committee, (MTR) | Member |
| 15) | Member Eco Development Committee, (MTR) | Member |
| 16) | Sarpanch of one Grampanchayat within the jurisdiction of Melghat Tiger Reserve. | Member |
| 17) | Principal Chief Conservator of Forests (Wildlife), M.S. Nagpur, and Chief Wildlife Warden. | Member-Secretary. |

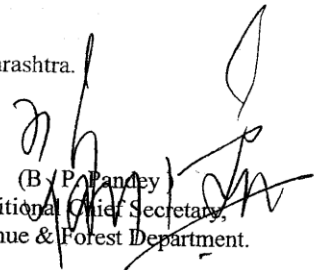
III) The Governing body of the Tadoba Andhari Tiger Reserve Conservation Foundation shall consist of the following members namely:-

- | | | |
|-----|--|----------------|
| 1. | Hon'ble Minister (Forest), Govt. of Maharashtra. | President |
| 2. | Add. Chief Secretary (Forests), Government of Maharashtra. | Vice President |
| 3. | Principal Chief Conservator of Forests, MS, Nagpur. | Member |
| 4. | Chief Conservator of Forests (Wildlife) Nagpur. | Member |
| 5. | Field Director, Tadoba Andhari Tiger Reserve, Chandrapur | Member |
| 6. | Deputy Director/ ACF TATR | Member |
| 7. | One nominee of BNHS, Mumbai | Member |
| 8. | One nominee of Wildlife Institute of India, Dehradun | Member |
| 9. | Member of Legislative Assembly, Bhadrawati. | Member |
| 10. | Member of Legislative Assembly, Chimur | Member |
| 11. | Member of Legislative Assembly, Mul Saoli. | Member |
| 12. | Representative of Zilla Parishad, Chandrapur. | Member |
| 13. | Representative of Eco-development Committee, Mudholi | Member |

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- | | | |
|-----|--|------------------|
| 14. | Representative of Eco-development Committee, Wasera | Member |
| 15. | Sarpanch of one Grampanchayat with in the jurisdiction of Tadoba Andhari Tiger Reserve. | Member |
| 16. | Chief Wildlife Warden and Principal Chief Conservator of Forests (Wildlife) M.S. Nagpur. | Member Secretary |

By order and in the name of the Governor of Maharashtra.


 (B. P. Pandey)
 Additional Chief Secretary,
 Revenue & Forest Department.

To :

- 1) Private Secretary to Minister (Forest), Govt. of Maharashtra, Mantralaya, Mumbai-400032.
- 2) Add. Chief Secretary (Forests), Govt. of Maharashtra, Mantralaya, Mumbai-400032.
- 3) Chief Wildlife Warden & Principal Chief Conservator of Forests (Wildlife) M. S. Nagpur.
- 4) Principal Chief Conservator of Forests, M.S., Nagpur.
- 5) Managing Director, Forest Development Corporation Ltd., M.S., Nagpur
- 6) Additional Principal Chief Conservator of Forests (Budget. Planning & Development), Nagpur.
- 7) Chief Conservative of Forests, (Wildlife), Nagpur.
- 8) Chief Conservative of Forests, Amravati.
- 9) Chief Conservative of Forests, Nagpur.
- 10) Conservative of Forests, North Chandrapur Circle, Chandrapur.
- 11) Chief Conservative of Forests, (Wildlife Administration), Nagpur.
- 12) Chief Conservative of Forests, (Protection), Nagpur.
- 13) Field Director, Melghat Tiger Reserve, Amravati.
- 14) Field Director, Pench Tiger Reserve, Nagpur.
- 15) Field Director, Tadoba Andhari Tiger Reserve, Chandrapur.

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दिनांक : - नोंदणी प्रमाणपत्र
सादर कुजेवाकन
प्रमाणक - कक्षा-६/कले
नागपूर, दिनांक :-

प्रति,
मुख्य वनसंरक्षक (वन्यजीव)
नागपूर

~~सविज्ञाप~~

कृष्णमोत येते की, पंच टायगार रिजर्व व कांसरवेशन
फाउंडेशन (Pench Tiger Reserve Conservation Foundation Nagpur)
वाकत आर्जीवाय कायुक्त कार्यालयाकडून दिनांक 15/12/08 रोजी
नागपूर
नोंदणी कृष्णमोत कांवेती मसुदा नोंदणी क्र. E-2208 (N) केली आहे.
नोंदणी प्रमाणपत्राची अंदाजित कालीनित्व काल कृष्णमोत येत आहे.

दिनांक :- नोंदणी प्रमाणपत्र (अंदाजित)


(डॉ. मोहन झा)
वनसंरक्षक तथा संपर्कचक्रक
पंच व्याघ्र प्रकल्प, नागपूर

प्रतिलिपि :- प्रथम मुख्य वनसंरक्षक (वन्यजीव) ~~नागपूर~~ मसुदा 15/12/08 रोजी
नागपूर येता कालीनित्व कावे .



No.

63846

नोंदणीचे प्रमाणपत्र

याद्वारे प्रमाणपत्र देण्यात येते की; खाली वर्णन केलेली सार्वजनिक विश्वस्तव्यवस्था ही आज, मुंबई सार्वजनिक विश्वस्तव्यवस्था अधिनियम, १९५० (सत १९५० चा मुंबई अधिनियम क्रमांक २९) या अन्वये *Nagpur* येथील सार्वजनिक विश्वस्तव्यवस्था नोंदणी कार्यालयात योग्य रीतीत द्यात झालेली आहे.

सार्वजनिक विश्वस्तव्यवस्थेचे नाव *Pench Tiger Reserve Conservation Foundation, Nagpur*
E-2208 (Nagpur)
नोंदणीकृत विश्वस्तव्यवस्थेच्या नोंदणी पुस्तकातील प्रमाण *Dr. Mohan D. Walkekar Sa.* यास प्रमाणपत्र दिले.

आज दिनांक *5.12.08* रोजी माझ्या सहीनिशी दिले.

थिबका



सही *[Signature]*
अर्जुन राम धावुक
पदनाम **कार्यदर्शक**
15/12/08

PENCH TIGER PROJECT.

THIS DECLARATION OF TRUST is made at _____ on this _____ day of _____ 2008, by the Board of Trustees (the First members of the Board of Trust) consisting of the following members, namely;

Hon'ble Minister (Forest) Govt. of Maharashtra.

Add. Chief Secretary (Forests) Govt. of Maharashtra

Chief Wildlife Warden & Principal Chief Conservator of Forests (Wildlife) M S, Nagpur.

Principal Chief Conservator of Forests ,MS, Nagpur.

Managing Director, Forest Development Corporation Ltd., M.S., Nagpur

Additional Principal Chief Conservator of Forests (BPD),Nagpur.

Chief Conservative of Forests, (Wildlife)Nagpur.

Chief Conservative of Forests, Nagpur.

Chief Conservative of Forests, (Wildlife Administration)Nagpur.

Chief Conservative of Forests, (Protection)Nagpur

Field Director, Pench Tiger Reserve, Nagpur

(Hereinafter called the TRUSTEES which expression shall unless excluded by or repugnant to the content be deemed to include their successors and assignees)

WHEREAS, the TRUSTEES have deeply felt it necessary to launch a sustainable strategy with regard to, management of Pench National Park and Tiger Reserve, Maharashtra and taking into consideration the vast experience and sustained efforts of various agencies and committees functioning in the Pench National Park and Tiger Reserve and adjoining areas, at grass root level,

AND WHEREAS, the TRUSTEES have felt that a facilitating agency called the '**Pench Tiger Reserve Conservation Foundation**' should be established for conservation of rich natural heritage and bio-diversity of the Pench National Park & Tiger Reserve, Maharashtra by focusing concerted efforts on Nature education, Wildlife Research, Eco-Development, Eco tourism, Sustainable livelihood of local people etc. so that this cause should be perpetuated and promoted further and beyond the governmental assistance and support, in a sustainable way,

WHEREAS, the Trustees are executing this deed of Trust after due deliberation and as a result of discussions held, in this respect.

NOW THIS DEED WITNESSES AND DECLARES AS FOLLOWS:

1. Constitution of Pench Tiger Reserve Foundation

1) The name of the TRUST shall be the **Pench Tiger Reserve Conservation Foundation** which hereafter will be referred to as the 'The Foundation'.

2)The head office of the Foundation shall be located at Nagpur, in Nagpur District, Maharashtra.

3)Area of operation of the Foundation shall be the Pench National Park & Tiger Reserve and its adjoining Landscape.

2. Aims and Objectives of the Foundation

- The aim of the Foundation shall be to facilitate and support the tiger reserve management for conservation of tiger and biodiversity, through multi-stakeholder participation as per approved management plans, and to support similar initiatives in adjoining landscapes, consistent with the national and state legislations.
- For the furtherance of the said objectives, the functions of the Foundation shall be undertaken through the implementing agency and its staff and or sponsored or supported by it or through other institutions, agencies or individuals collaborated by the implementing agency.
- To achieve the above said aim, the Foundation shall have the following objectives, namely:
 - a) To facilitate ecological, economic, social and cultural development in the tiger reserve and adjoining landscape.
 - b) To provide support to safeguard the natural environment in tiger reserve and relevant places in the entire Central India, especially, the Vidharba region.

- c) To facilitate creation of and or maintenance of such assets as felt necessary for fulfilling the above stated objectives.
- d) To solicit technical, financial, social and other support required for various activities of the Foundation for achieving the objectives from diverse sources in conformity with the law.
- e) To support eco-development, ecotourism, research, environmental education, training management and advisory aspects in the above and related fields to support the implementing agency; and
- f) Anything incidental or ancillary to the above for furthering the above said objectives.

3. **Governing Body of the Foundation**

The Pench Tiger Reserve Conservation Foundation shall have a governing body for giving overall policy guidance and direction to the Pench Tiger Reserve Conservation Foundation.

The Governing body of the Pench Tiger Reserve Conservation Foundation shall consist of the following members namely:-

- | | |
|---|------------------|
| 1. Hon'ble Minister (Forests), Govt. of Maharashtra: | President |
| 2. Add. Chief Secretary (Forests), Government of Maharashtra: | Vice President |
| 3. Principal Chief Conservator of Forests , MS, Nagpur: | Member |
| 4. Chief Conservator of Forests (Wildlife) Nagpur: | Member |
| 5. Field Director, Pench National Park and Tiger Reserve, Nagpur: | Member |
| 6. Deputy Director/ ACF Pench: | Member |
| 7. One nominee of BNHS, Mumbai: | Member |
| 8. One nominee of Wildlife Institute of India Dehradun: | Member |
| 9. Member of Legislative Assembly, Ramtek: | Member |
| 10. Member of Legislative Assembly, Saoner: | Member |
| 11. Representative of Zilla Parishad , Nagpur: | Member |
| Representative of Eco-development Committee , Sillari: | Member |
| 12. Chairman of Eco-development committee, Kolutmara: | Member |
| 13. Chief Wildlife Warden and Principal Chief
Conservator of Forests (Wildlife) M.S. Nagpur: | Member-Secretary |

4. Cessation of Membership A member of the Governing Body becomes a member by reason of the office of appointment he/she holds. His/ her membership of the Governing Body shall terminate when he/she ceases to hold that office, post or appointment.

5. Tenure of Nominated Members The tenure of nominated member shall be for period of three years from the date of his nomination.

6. Powers and Functions of the Governing Body The Governing Body shall have the following powers and perform the following functions, namely;

- (a) make over all policy of the Foundation in consonance with the provisions of the Act;
- (b) Consider and approve the balance sheet and audited accounts of the Foundation.;
- (c) Consider and approve the Annual Report of the Foundation.
- (d) Approve the work plan, fund flow, Annual Budget of the Foundation;
- (e) Make amendment in the deed of trust, which may be necessary, subject to the approval of the Government.
- (f) Approve the "Operations Manual" of the Foundation;
- (g) Coordinate between different departments and other institutions and non Governmental organizations to achieve the objectives of the Foundations.
- (h) Frame rules and regulations under the provisions of the trust of deed for managing the affairs of the Foundations.
- (i) Take all policy decisions regarding fund raising, investment and budget of the Foundation.

(j) Suspend, terminate or effect any other procedures on any Project or activity undertaken by the Foundation; and

(k) Perform such other functions as may necessary to achieve the objectives of the trust.

7. Proceedings of the Governing Body The meeting of the Governing Body shall be held in the following manner, namely:-

- (i) the meetings of the Governing Body shall be held at least once in a year preferably in the first month of the financial year;
- (ii) every meeting of the Governing Body shall be called in writing by and under the signature of the Member-Secretary of the Governing Body through a prior notice of fifteen days containing a summary of the business to be transacted in such meeting;
- (iii) any inadvertent omission to give notice to, or the non-receipt of notice of any meeting by any member shall not invalidate the proceedings of the meeting;
- (iv) if the President is not present in the meeting of the Governing Body, the Vice-President shall preside over the meeting;
- (v) one third of the members of the Governing Body present shall form the quorum of the Governing Body provided that no quorum shall be necessary in respect of any adjourned meeting;
- (vi) all disputes in a meeting shall be determined by the division of vote;
- (vii) the member who is unable to attend the Governing Body meeting may send his views on the agenda in writing and such expression of opinion shall be taken to be his views on the agenda in writing and such expression of opinion shall be taken to be his vote on the matter concerned; and
- (viii) The minutes of the proceedings of the meeting shall be recorded and such minutes after approved the signed by the Member Secretary, Governing Body shall be the conclusive proof of the business transacted in the meeting.

8. Executive Committee The affairs of the Foundation shall be administered subject to the rules and regulations and orders of the Foundation, by the Executive Committee, which shall consist of, the following;

1. Field Director, Pench Tiger Reserve - Chairperson
2. Deputy Director/ACF Pench, Pench Tiger Reserve - Member-Secretary
3. Representative of Eco-development Committee, Sillari - Member
4. Representative of Eco-development Committee, Koltimara - Member
5. Range Forest officer, East Pench - Member
6. Range Forest officer, West Pench - Member

9. Cessation of Membership :- A member of the Executive Committee becomes a member by reason of the office of appointment he/she holds. His/ her membership of the Governing Body shall terminate when he/she ceases to hold that office, post or appointment.

10. Tenure of Nominated Members :- The tenure of nominated member shall be for period of two years from the date of his nomination.

11. Functions and Powers of the Executive Committee

- a) The affairs and funds of the Foundation in accordance with the rules and regulations of the Foundation;
- b) Endeavor to achieve the objectives of the Foundation and discharge all its functions;
- c) Perform such other functions as are assigned to it by the Governing Body.

12. Proceedings of the Executive Committee:

- 1) Every meeting of the Executive Committee shall be presided over by the Chairperson. Provided that in the absence of the Chairperson the Executive Committee shall elect a Chairman to preside over the meeting.
- 2) One-half of the total members of the Executive Committee present in the meeting shall constitute the quorum, provided that no quorum shall be necessary in respect of any adjourned meeting.
- 3) Not less than seven days notice for every meeting of the Executive Committee shall be given to each member of the said Committee, provided that the Chairperson may call an emergency meeting if the situation so warrants.

- 4) Any inadvertent omission to give notice to or the non-receipt of notice of any meeting by any member shall not invalidate the proceedings of the meeting.
- 5) The Executive Committee shall meet as and when necessary but at least once in every month.
- 6) All disputed issues in the Executive Committee meetings shall be determined by vote among members.
- 7) Any member who is unable to attend the Executive Committee meeting may send his views on the agenda in writing and such expression of opinion shall be taken to be his vote on the matter concerned.
- 8) The Executive Committee shall refer any issue for the advice or recommendation to a Sub-Committee constituted by it for the purpose and the Executive Committee shall have the right to override the recommendation or advice given by the Sub-Committee and in doing so, it shall record reasons thereof.
- 9) The Annual General Body Meeting of the Executive Committee shall be conducted every year and the audited accounts of the previous year and the budget for the current year shall be presented, discussed and approved.
- 10) The Minutes of the proceedings of the Executive Committee meetings shall be recorded and such minutes after due approval shall be issued by the Secretary.

13. Office and Authorities of the Executive Committee -

- (1) The Field Director of the Tiger Reserve shall be the Executive Director of the Foundation and he or she shall carry out all administrative and day-to-day functions of the Foundation on behalf of the Executive Committee and he shall be the custodian of all records, assets and belongings of the Foundation.
- (2) The Executive Director shall have the following powers in conformity with the rules of the Foundation; namely:-
 - a) to accept contributions on behalf of the Foundation either by Cheque, Demand Draft or other bank instruments or in kind from a person or institutions.
 - b) to purchase, acquire, take on lease any movable and immovable property for the purpose of achieving the objectives of the Foundation.
 - c) to have control and authority on the general administration of the Foundation.
 - d) to open and operate accounts with banks.
 - e) to prosecute, sue and defend all actions at law for and on behalf of the Foundation.
- (3) The Executive Director shall have powers to convene seminars, workshops, etc., and to oversee publications of research materials and books of the Foundation.
- (4) The Executive Director shall initiate appropriate actions for the preparation and submission of project proposals on different programmes to be undertaken by the Foundation to various agencies for support.
- (5) The Executive Director shall have powers to interact with National and International Agencies for furthering the objectives of the Foundation.

14. Property, Assets and Liabilities –

- (1) The income and property of the Foundation, howsoever derived, shall be applied solely towards the promotion of the objectives thereof as set forth above.
- (2) No portion of the income and property of the Foundation shall be paid or transferred directly or indirectly, by way of dividend, bonus or otherwise, howsoever, by way of profit, to the persons who at any point of time have been members of the Foundation or to any of them or to any person claiming through them.
- (3) Provided that nothing herein contained shall prevent the payment of remuneration to any member or any person in return of any service rendered to the Foundation or for any administrative expenses as stipulated in the Operations Manual.

15. Powers of the Government – The Government may time to time review the functioning of the Foundation and issue such directions, as it may consider necessary in respect of the affairs of the Foundation.

16. Financial Regulations –

Funds of the Trust: The following shall be the various sources of funds for running the affairs of the Foundation in conformity with the rules and regulations of the trust, namely:-

- (a) the income generated from levying tourist entry fees and other charges for the services generated out of the Tiger Reserve;
- (b) contribution from other sources in terms of specific projects from national as well as international agencies as permitted by law;
- (c) grant-in-aids, donation or assistance of any kind from any individuals or organizations including foreign Governments and other external agencies as permitted by law; and
- (d) any other activity as permitted by law and in conformity with the rules of the trust.

B. Accounts of Audit :

- (a) The Foundation shall maintain proper accounts and prepare annual accounts comprising of the receipts and payments, statement of liabilities, etc., in such form as may be determined;
- (b) The accounts of the Foundation shall be audited annually by the qualified Chartered Accountant, empanelled by the Comptroller Auditor-General of India, approved by the Governing Body;
- (c) The audited accounts shall be discussed and approved by the Governing Body in its annual meeting held for the purpose; and
- (d) The accounts of the Foundation shall be subjected to the general provisions and directives of the Comptroller and Auditor-General of India.

17. Dissolution of the Foundation – The Foundation is irrevocable, however, in the event of any circumstance in which it is decided to terminate or dissolve the Foundation, after the satisfaction of all its debts and liabilities, any assets and property, whatsoever be the same, shall not be paid to or distributed among the members of the Foundation but shall be dealt with in such manner as the State Government may determine in that behalf.

18. Miscellaneous:-

- (1) As and when there is any change in the nomenclature of Ministries, Departments, or institution and designation mentioned, such changes shall automatically stand incorporated in the rules of the Foundation.
- (2) Every staff of the Foundation may be sued or prosecuted by the Foundation for any loss or damage caused to the Foundation or its property or for anything done by him detrimental to the interests of the Foundation.

IN WITNESS WHERE OF the Trustees have executed these presents on the day, month and year above mentioned.

Signature, names and Addresses of the Trustees

In the presence of

- 1) Signature, Name & Address
- 2) Signature, Name & Address

APPENDIX-VIII

वन्यप्राण्यांच्या हल्ल्यामुळे झालेल्या मनुष्यहानीसाठी
अर्थसहाय्य देण्याबाबत...

महाराष्ट्र शासन

महसूल व वन विभाग,

शासन निर्णय क्रमांक-डब्ल्यूएलपी-२०१२/प्र.क्र.३३७/फ-१

मंत्रालय, मुंबई ४०००३२

दिनांक : ३० मार्च, २०१३.

पहा :- शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००८/प्र.क्र.२७०/फ-१,
दिनांक ०२.०७.२०१०.

प्रस्तावना :-

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लॉडगा, तरस व रानकुत्रे (डोल) यांना वन्यजीव (संरक्षण) अधिनियम, १९७२ अंतर्गत संरक्षण देण्यात आलेले आहे. वनक्षेत्राच्या अधिवासात आढळणाऱ्या हिंस्र प्राण्यांकडून होणाऱ्या हल्ल्यात मनुष्य हानी झाल्यास दिनांक ०२.०७.२०१० च्या शासन निर्णयामधील तरतुदीनुसार अर्थसहाय्याची रक्कम संबंधितांना अदा करण्यात येते. सदर शासन निर्णयान्वये मनुष्यहानी प्रकरणी देण्यात येणारी अर्थसहाय्याची रक्कम कमी असल्यामुळे त्यात वाढ करण्याची बाब शासनाच्या विचाराधीन होती.

शासन निर्णय :-

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लॉडगा, तरस, कोल्हा, हत्ती, मगर व रानकुत्रे (डोल) यांच्या हल्ल्यामुळे व्यक्ती मृत झाल्यास, कायम अपंग झाल्यास किंवा गंभीररित्या जखमी झाल्यास खालील तक्त्याप्रमाणे अर्थसहाय्य दिनांक ०२.०७.२०१० रोजीच्या शासन निर्णयामधील याबाबत दिलेल्या अटीच्या अधिन राहून देण्यात यावे.

व्यक्ती मृत झाल्यास, कायम अपंग झाल्यास किंवा गंभीररित्या जखमी झाल्यास

अ.क्र.	तपशील	देय अर्थसहाय्याची रक्कम
१	व्यक्ती मृत झाल्यास	रुपये ५,००,०००/- (रुपये पाच लाख फक्त)
२	व्यक्ती कायम अपंग झाल्यास	रुपये ४,००,०००/- (रुपये चार लाख फक्त)
३	व्यक्ती गंभीररित्या जखमी झाल्यास	रुपये १,००,०००/- (रुपये एक लाख फक्त)


२. वरील तक्त्यातील अनुक्रमांक-२ व ३ मधील प्रकरणी, कायम अपंगत्वाचा दाखला जिल्हा शल्य चिकित्सक यांच्याकडून घेणे आवश्यक राहिल.

रॉट/एच-०६३२(००५-४-२०१३)-१
DACR WISTR012GENERAL RULES-2012CR-337-2012 Wildlif Conservation Dept.

[कु. म. प.]

३. उपरोक्त तरतुदी सदर शासन निर्णय निर्गमित झाल्याच्या दिनांकापासून लागू करण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.


(प्रवीण परदेशी)
प्रधान सचिव (वने)
महसूल व वन विभाग.

प्रत माहिती आणि उचित कार्यवाहीसाठी :-

- मा. मुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे प्रधान सचिव.
- मा. उपमुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे सचिव.
- मा. मंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
- मा. राज्यमंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
- मुख्य सचिव, महाराष्ट्र राज्य, मंत्रालय, मुंबई.
- प्रधान सचिव, नियोजन विभाग, मंत्रालय, मुंबई.
- प्रधान सचिव, वित्त विभाग, मंत्रालय, मुंबई.
- प्रधान सचिव (कृषी), कृषी व पशु विभाग, मंत्रालय, मुंबई.
- महसूल संचालक, माहिती व प्रविष्टी, मंत्रालय, मुंबई.
- प्रधान मुख्य वनसंरक्षक, महाराष्ट्र राज्य, नागपूर.
- प्रधान मुख्य वनसंरक्षक (वन्यजीव), म.रा.नागपूर.
- अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर.
- व्यवस्थापकीय संचालक, महाराष्ट्र राज्य वनविकास महामंडळ, नागपूर.
- संचालक, सामाजिक उनीकरण संचालनालय, म.रा. पुणे
- मुख्य वनसंरक्षक (प्रादेशिक), सर्वे
- मुख्य वनसंरक्षक (वन्यजीव) नागपूर / मुंबई (बोरोवली) / नाशिक
- वनसंरक्षक (वन्यजीव), पुणे / कोल्हापूर / नाशिक
- वनसंरक्षक, कोल्हापूर, उत्तर चंद्रपूर, दक्षिण चंद्रपूर
- वनसंरक्षक तथा क्षेत्र संचालक, मॅट्टेघाट व्याघ्र प्रकल्प, अमरावती
- वनसंरक्षक तथा क्षेत्र संचालक, संजय गांधी राष्ट्रीय उद्यान, बोरिवली
- वनसंरक्षक तथा क्षेत्र संचालक, पंच व्याघ्र प्रकल्प, नागपूर
- वनसंरक्षक तथा क्षेत्र संचालक, ताडोबा अधारी व्याघ्र प्रकल्प, चंद्रपूर
- सर्व पोलिस आयुक्त
- सर्व जिल्हाधिकारी
- उपवनसंरक्षक (प्रादेशिक) सर्वे
- उपवनसंरक्षक (वन्यजीव), आर्षे/गोंदिया/अकोला/आलापल्ली चंद्रपूर स्थित/ओरंगबाद
- उपविभागीय वन अधिकारी, सांगली/उस्मानाबाद/बीड/भोर/चिपळूण/सांगमनेर/भालेगाव/हिंगोली.
- सर्व पोलिस अधीक्षक
- सर्व जिल्हा कृषी अधिकारी
- महालखापाल-१/२ (लेखापरीक्षा/लेखा व अनुज्ञेयता), महाराष्ट्र राज्य, मुंबई / नागपूर
- नियोजन विभाग, मंत्रालय, मुंबई - ४०००३२.
- वित्त विभाग (व्यय-२० कार्यासन), मंत्रालय, मुंबई - ४०००३२.
- कृषी, पशुसंवर्धन, पशुविकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई - ४०००३२.
- वन यंत्रणातील सर्व कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई-४०००३२
- फ-२ कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई - ४०००३२ (नियडनस्ती).

रघ-०६३२ - १३१-

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विभागीय वनसंरक्षक (प्रविष्टी विभाग)
नागपूर

By Email on 12-11/3/Scan/ory

वन्यप्राण्यांच्या हल्ल्यामुळे झालेल्या मनुष्यहानीसाठी
अर्थसहाय्य देण्याबाबत...

महाराष्ट्र शासन
महसूल व वन विभाग,
शासन निर्णय क्रमांक-डब्ल्यूएलपी-२०१२/प्र.क्र.३३७/फ-१
मंत्रालय, मुंबई ४०००३२
दिनांक : १२ एप्रिल, २०१३.

पहा :- शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००८/प्र.क्र.२७०/फ-१,
दिनांक ०२.०७.२०१०.

प्रस्तावना :-

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लांडगा, तरस व रानकुत्रे (डोल)
यांना वन्यजीव (संरक्षण) अधिनियम, १९७२ अंतर्गत संरक्षण देण्यात आलेले आहे. वनक्षेत्राच्या
अधिवासात आढळणाऱ्या हिंस्र प्राण्यांकडून होणाऱ्या हल्ल्यात मनुष्य हानी झाल्यास दिनांक
०२.०७.२०१२ च्या शासन निर्णयामधील तरतुदीनुसार अर्थसहाय्याची रक्कम संबंधितांना अदा
करण्यात येते. सदर शासन निर्णयान्वये मनुष्यहानी प्रकरणी देण्यात येणारी अर्थसहाय्याची रक्कम
कमी असल्यामुळे त्यात वाढ करण्याची बाब शासनाच्या विचाराधीन होती.

शासन निर्णय :-

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लांडगा, तरस, कोल्हा, हत्ती, मगर व
रानकुत्रे (डोल) यांच्या हल्ल्यामुळे व्यक्ती मृत झाल्यास, कायम अपंग झाल्यास किंवा गंभीररित्या
जखमी झाल्यास खालील तक्त्याप्रमाणे अर्थसहाय्य दिनांक ०२.०७.२०१० रोजीच्या शासन
निर्णयामधील याबाबत दिलेल्या अटीच्या अधिन राहून देण्यात यावे.

व्यक्ती मृत झाल्यास, कायम अपंग झाल्यास किंवा गंभीररित्या जखमी झाल्यास

अ.क्र.	तपशील	देय अर्थसहाय्याची रक्कम
१	व्यक्ती मृत झाल्यास	रुपये ५,००,०००/- (रुपये पाच लाख फक्त)
२	व्यक्ती कायम अपंग झाल्यास	रुपये ४,००,०००/- (रुपये चार लाख फक्त)
३	व्यक्ती गंभीररित्या जखमी झाल्यास	रुपये १,००,०००/- (रुपये एक लाख फक्त)

२. वरील तक्त्यातील अनुक्रमांक-२ येथील प्रकरणी, कायम अपंगत्वाचा दाखला जिल्हा शल्य
चिकित्सक यांच्याकडून घेणे आवश्यक राहिल.

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३. उपरोक्त तरतुदी सदर शासन निर्णय निर्गमित झाल्याच्या दिनांकापासून लागू करण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

प्रवीण परदेशी

(प्रवीण परदेशी)

प्रधान सचिव (वने)

महसूल व वन विभाग.

प्रत माहिती आणि उचित कार्यवोहीसाठी :-

- मा. मुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे प्रधान सचिव.
- मा. उपमुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे सचिव.
- मा. मंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
- मा. राज्यमंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
- मुख्य सचिव, महाराष्ट्र राज्य, मंत्रालय, मुंबई.
- प्रधान सचिव, नियोजन विभाग, मंत्रालय, मुंबई.
- प्रधान सचिव, वित्त विभाग, मंत्रालय, मुंबई.
- प्रधान सचिव (कृषी), कृषी व पशुम विभाग, मंत्रालय, मुंबई.
- महासंचालक, माहिती व प्रसिध्दी, मंत्रालय, मुंबई.
- प्रधान मुख्य वनसंरक्षक, महाराष्ट्र राज्य, नागपूर,
- प्रधान मुख्य वनसंरक्षक (वन्यजीव), म.रा.नागपूर,
- अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर,
- व्यवस्थापकीय संचालक, महाराष्ट्र राज्य वनविकास महामंडळ, नागपूर.
- संचालक, सामाजिक वनीकरण संचालनालय, म.रा. पुणे
- मुख्य वनसंरक्षक (प्रादेशिक), सर्व
- मुख्य वनसंरक्षक (वन्यजीव) नागपूर / मुंबई (बोरीवली)/नाशिक
- वनसंरक्षक (वन्यजीव), पुणे / कोल्हापूर / नाशिक
- वनसंरक्षक, कोल्हापूर, उत्तर चंद्रपूर, दक्षिण चंद्रपूर.
- वनसंरक्षक तथा क्षेत्र संचालक, मेळघाट व्याघ्र प्रकल्प, अमरावती
- वनसंरक्षक तथा संचालक, संजय गांधी राष्ट्रीय उद्यान, बोरिवली
- वनसंरक्षक तथा क्षेत्र संचालक, पेंच व्याघ्र प्रकल्प, नागपूर
- वनसंरक्षक तथा क्षेत्र संचालक, ताडोबा अंधारी व्याघ्र प्रकल्प, चंद्रपूर
- सर्व पोलिस आयुक्त
- सर्व जिल्हाधिकारी
- उपवनसंरक्षक (प्रादेशिक) सर्व
- उपवनसंरक्षक (वन्यजीव), ठाणे/गोंदिया/अकोला/आलापल्ली चंद्रपूर स्थित/औरंगाबाद
- उपविभागीय वन अधिकारी, सांगली/उस्मानाबाद/बीड/भोर/चिपळूण/संगमनेर/मालेगाव/हिंगोली.

सर्व पोलिस अधीक्षक
सर्व जिल्हा कृषी अधिकारी
महालेखापाल-१/२ (लेखापरीक्षा /लेखा व अनुज्ञेयता), महाराष्ट्र राज्य, मुंबई / नागपूर
नियोजन विभाग, मंत्रालय, मुंबई - ४०००३२.
वित्त विभाग (व्यय-१० कार्यासन), मंत्रालय, मुंबई - ४०००३२.
कृषी, पशुसंवर्धन, दुग्धविकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई - ४०००३२.
वन कक्षातील सर्व कार्यासने, महसूल व वन विभाग, मंत्रालय, मुंबई-४०००३२
फ-१ कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई - ४०००३२ (निवडनस्ती).

वन्य प्राण्यांच्या हल्ल्यामुळे झालेल्या
मनुष्यहानीसाठी अर्थसहाय्य देण्याबाबत.

महाराष्ट्र शासन
महसूल व वन विभाग
शासन निर्णय क्रमांक - डब्ल्यूएलपी-२०१२/प्र.क्र.३३७/फ-१
मंत्रालय, मुंबई ४०० ०३२.
दिनांक - २९ मे, २०१३.

- वाचा - १) शासन निर्णय, महसूल व वन विभाग, क्रमांक डब्ल्यूएलपी-२०१२/प्र.क्र.३३७/फ-१,
दिनांक ३० मार्च, २०१३.
२) शासन निर्णय, महसूल व वन विभाग (मदत व पुनर्वसन कक्षा), क्रमांक डब्ल्यूआर-१०९३/
प्र.क्र.७१/भूपुक, दिनांक ३० नोव्हेंबर, १९९३.

प्रस्तावना -

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लांडगा, तरस व रानकुत्रे (ढोल) यांना वन्यजीव संरक्षण अधिनियम, १९७२ अंतर्गत संरक्षण देण्यात आलेले आहे. वन क्षेत्राच्या अधिवासात आढळणाऱ्या हिंस्त्र प्राण्यांकडून होणाऱ्या हल्ल्यात मनुष्य हानी झाल्यास, दिनांक ३० मार्च, २०१३ रोजीच्या शासन निर्णयामधील तरतुदीनुसार अर्थसहाय्याची रक्कम संबंधितांना अदा करण्यात येते. तथापि, व्यक्ती मृत झाल्यास, त्यांना सदर अर्थसहाय्य देण्याकरिता दिवाणी न्यायालयामधून वारसा प्रमाणपत्र सादर करणे अनिवार्य असते व त्यासाठी बराच वेळ लागतो आणि त्यांना वेळेवर अर्थसहाय्य न मिळाल्यामुळे असंतोषाचे वातावरण निर्माण होते. यापूर्वी लातूर येथे भूकंपग्रस्त व्यक्तींना अर्थसहाय्य देण्याकरिता अशाच प्रकारच्या समस्या निर्माण होत असल्याने मदत व पुनर्वसन कक्षाकडून याबाबतच्या संदर्भ क्रमांक-२ नुसार सूचना निर्गमित करण्यात आल्या होत्या. दिनांक १७ एप्रिल, २०१३ रोजी मा.मंत्री (वने) यांनी विधान परिषदेमध्ये लक्षवेधी सूचनेला उत्तर देताना वन्य प्राणी हल्ल्यामध्ये मृत व्यक्तीच्या वारसांना अर्थसहाय्य देताना दिरंगाई होत असल्याने, शासनाकडून याबाबतच्या सूचना तातडीने निर्गमित करण्यात येतील, असे आश्वासन दिले होते. व्यक्ती मृत झाल्यावर अर्थसहाय्य लवकर मिळण्याच्या दृष्टीने शासन निर्णय खालीलप्रमाणे निर्गमित करण्यात येत आहे.

शासन निर्णय -

वाघ, बिबट्या, अस्वल, गवा (बायसन), रानडुक्कर, लांडगा, तरस व रानकुत्रे (ढोल) यांच्या हल्ल्यामुळे व्यक्ती मृत झाल्यावर खाली नमूद केल्याप्रमाणे वारसा प्रमाणपत्रची आवश्यकता नाही.

वन्य प्राणी हल्ल्यामध्ये मृत झालेल्या व्यक्तीच्या वारसांना अनुदान / अर्थसहाय्य देण्याबाबतचे निकष खालीलप्रमाणे उरवतील.

(I) पुरुष प्रौढ व्यक्ती मृत असल्यास

- (अ) त्याची पत्नी जीवंत असल्यास, पत्नी आणि अज्ञान मुलांना सम प्रमाणात मदत द्यावी.
- (ब) पत्नी जीवंत नसल्यास सर्व जीवंत अपत्यांना सम प्रमाणात मदत देण्यात यावी.
- (क) जर काही अपत्ये अज्ञान असतील, तरी त्यांचे हिस्से ती अज्ञान अपत्ये व अतिरिक्त जिल्हाधिकारी (नियमीत) यांचे संयुक्त नावे ठेवण्यात यावे.
- (ड) जर पत्नी आणि अपत्ये जीवंत नसतील तर मृत व्यक्तीच्या आई-वडीलांच्या किंवा त्यांच्यापैकी जो जीवंत असेल त्याला मदत देण्यात यावी.

(II) जर प्रौढ स्त्री मृत पावली असल्यास

- (अ) पती जीवंत असल्यास पती आणि अज्ञान मुलांना सम प्रमाणात मदत द्यावी.
- (ब) पती जीवंत नसल्यास सर्व जीवंत अपत्यास सम प्रमाणात मदत देण्यात यावी.
- (क) जर काही जीवंत अपत्ये अज्ञान असतील तर त्यांचे हिस्से ती अज्ञान अपत्ये व अतिरिक्त जिल्हाधिकारी (नियमीत) यांचे संयुक्त नावे ठेवण्यात यावे.
- (ड) जर पती आणि अपत्ये जीवंत नसतील तर मृत व्यक्तीच्या आई-वडीलांच्या किंवा त्यांच्यापैकी जो जीवंत असेल त्याला मदत देण्यात यावी.

(III) ० ते १८ वर्ष वयोगटातील व्यक्ती मृत पावली असल्यास

- (अ) त्याच्या आई-वडीलांना किंवा त्यापैकी, जो जीवंत असेल त्याला मदत देण्यात यावी.
- (ब) आई-वडील जर जीवंत नसतील तर मृत व्यक्तीच्या भाऊ व बहिणीस समप्रमाणात मदत देण्यात यावी.

- (IV)(अ) वर नमूद केलेल्या व्यतिरिक्त उर्वरीत सर्व प्रकरणामध्ये सक्सेशन सर्टिफिकेट मागवूनच त्याप्रमाणे मदत देण्यात यावी.
- (ब) तसेच वर नमूद केलेल्या किंवा इतर कोणत्याही प्रकरणात आक्षेप घेतला असल्यास संबंधित व्यक्तीस सक्सेशन सर्टिफिकेट सादर करण्यास सांगूनच मदत देण्यात यावी.


दिनांक ३० मार्च, २०१३ च्या शासन निर्णयान्वये व्यक्ती मृत झाल्यास, शासन निर्णयामधील तरतुदीनुसार रुपये ५ लाख अर्थसहाय्याची रक्कम त्यांच्या संबंधितांना अदा करण्यात येते. या रक्कमेपैकी रुपये १ लाख अर्थसहाय्य म्हणून देण्यात येतील आणि उर्वरित रुपये ४ लाख उपरोक्त क्रमांक (I), (II) आणि (III) मध्ये नमूद केल्याप्रमाणे देय असलेल्या व्यक्तीच्या नांवे त्यांच्या राष्ट्रीयकृत बँकेत असलेल्या दरमहा व्याज देणाऱ्या संयुक्त खात्यामध्ये ठेव रक्कम (फिक्स डिपॉझिटी) जमा करण्यात यावी. त्या ठेव रक्कमेवर दरमहा येणारे व्याज त्या कुटूंबास उपलब्ध होईल.

संबंधित वन परिक्षेत्र अधिकारी यांनी उपरोक्त नमूद प्रमाणे कार्यवाही करताना महसूल मंडळ अधिकारी यांचेकडून मृत व्यक्तीच्या कुटूंबाबाबतचे प्रमाणपत्र प्राप्त करावे व संबंधितांकडून मृत व्यक्तीचे वारस असल्याबाबतचे शपथपत्र घ्यावे. जर आदिवासी व दुर्गम भागात शपथपत्र करणे शक्य नसेल तर त्या

परिस्थितीत संबंधित नायब तहसिलदार मृत व्यक्तीचे वारसाबाबत यांचेकडून प्रमाणपत्र प्राप्त करून अर्थसहाय्य देण्याची कार्यवाही करावी.

वन्य प्राण्यांच्या हल्ल्याने मृत झाल्याबाबतची घटना कळल्याचे दोन दिवसांचे आत वन परिक्षेत्र अधिकारी यांनी सदर घटनेबाबत महसूल मंडळ अधिकारी / नायब तहसिलदार यांना सूचना द्याव्यात व मृत व्यक्तीबाबतची सर्व कागदपत्रे देण्यात यावीत. दोन दिवसांचे आत सूचना न दिल्यास, संबंधित वन परिक्षेत्र अधिकारी यांचेवर शिस्तभंगाची कार्यवाही करण्यात येईल.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने,


(डॉ. यु.एम.फारुकी)
सह सचिव (वने)

प्रत, माहिती व उचित कार्यवाहीसाठी -

मा.मुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे प्रधान सचिव.

मा.उपमुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे सचिव.

मा.मंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.

मा.राज्यमंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.

मुख्य सचिव, महाराष्ट्र राज्य, मंत्रालय, मुंबई.

अपर मुख्य सचिव (महसूल), मंत्रालय, मुंबई.

अपर मुख्य सचिव, नियोजन विभाग, मंत्रालय, मुंबई.

अपर मुख्य सचिव (कृषी), कृषी व पदुम विभाग, मंत्रालय, मुंबई.

प्रधान सचिव, वित्त विभाग, मंत्रालय, मुंबई.

सचिव (मदत व पुनर्वसन), महसूल व वन विभाग, मंत्रालय, मुंबई.

महासंचालक, माहिती व प्रसिध्दी महासंचालनालय, मंत्रालय, मुंबई.

प्रधान मुख्य वनसंरक्षक (वन बल प्रमुख), महाराष्ट्र राज्य, नागपूर.

प्रधान मुख्य वनसंरक्षक (वन्यजीव), महाराष्ट्र राज्य, नागपूर.

अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर.

व्यवस्थापकीय संचालक, महाराष्ट्र राज्य वनविकास महामंडळ, नागपूर.

प्रधान मुख्य वनसंरक्षक व महासंचालक, सामाजिक वनीकरण संचालनालय, म.रा. पुणे

अपर प्रधान मुख्य वनसंरक्षक (वन्यजीव), नागपूर / पश्चिम मुंबई / नाशिक.

सर्व विभागीय आयुक्त

सर्व मुख्य वनसंरक्षक (प्रादेशिक)

सर्व मुख्य वनसंरक्षक (वन्यजीव)

मुख्य वनसंरक्षक तथा क्षेत्र संचालक, ताडोबा अंधारी व्याघ्र प्रकल्प, चंद्रपूर.

मुख्य वनसंरक्षक तथा क्षेत्र संचालक, मेळघाट व्याघ्र प्रकल्प, अमरावती

मुख्य वनसंरक्षक तथा क्षेत्र संचालक, पेंच व्याघ्र प्रकल्प, नागपूर.

मुख्य वनसंरक्षक तथा क्षेत्र संचालक, सह्याद्री व्याघ्र प्रकल्प, कोल्हापूर

मुख्य वनसंरक्षक तथा संचालक, संजय गांधी राष्ट्रीय उद्यान, बोरिवली
सर्व पोलीस आयुक्त
सर्व जिल्हाधिकारी
सर्व वनसंरक्षक (वन्यजीव)
सर्व उपवनसंरक्षक (प्रादेशिक)
सर्व उपवनसंरक्षक (वन्यजीव)
विभागीय वन अधिकारी, सांगली / उस्मानाबाद / बीड / भोर / चिपळूण / संगमनेर / मालेगांव / हिंगोली.
सर्व पोलीस अधिक्षक.
सर्व जिल्हा कृषी अधिकारी.
महालेखापाल-१/२ (लेखा परीक्षा / लेखा व अनुज्ञेयता), महाराष्ट्र राज्य, मुंबई / नागपूर
नियोजन विभाग, मंत्रालय, मुंबई.
वित्त विभाग (व्यय-१० कार्यासन), मंत्रालय, मुंबई.
कृषी, पशुसंवर्धन, दुग्धविकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई.
प्रसिध्दी व माहिती अधिकारी (वने), महाराष्ट्र राज्य, नागपूर
वन कक्षातील सर्व कार्यासने, महसूल व वन विभाग, मंत्रालय, मुंबई.
निवड नस्ती, फ-१ कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई.

APPENDIX - IX

राज्यात सर्व राष्ट्रीय उद्यान अभयारण्य व
व्याघ्र प्रकल्प क्षेत्रात भेटी देणाऱ्या
पर्यटकांसाठी प्रवेश शुल्क निर्धारित
करण्याबाबत.

महाराष्ट्र शासन
महामूल व वन विभाग
शासन निर्णय क्रमांक डब्ल्यूएलपी-१०२०००/प्र.क्र.६२/फ-१
मंत्रालय, मुंबई - ४०० ०३२
दिनांक : १७ मे, २००४

- वाचावे : (१) शासन निर्णय समक्रमांक दि.३१.८.२०००
(२) शासन निर्णय समक्रमांक दि.६.२.२००१.
(३) शासन निर्णय समक्रमांक दि. २०.६.२००२

प्रस्तावना :

राज्यात सर्व वन्यजीव अभयारण्य, राष्ट्रीय उद्यान आणि व्याघ्र प्रकल्प क्षेत्रात येणाऱ्यांकडून वसूल करावयाचे प्रवेश शुल्क व वाहन शुल्क संदर्भ क्र. २ येथील शासन निर्णयान्वये निश्चित करण्यात आले होते. तदनंतर संदर्भ क्र. ३ येथील शासन निर्णयानुसार विशिष्टपणे संजय गांधी राष्ट्रीय उद्यान, बोरीवली येथील पायी येणाऱ्या पर्यटकांकडून प्रवेश शुल्क निर्धारित करण्यात आले होते. तत्पूर्वी संदर्भ क्र. १ येथील शासन निर्णयानुसार संजय गांधी राष्ट्रीय उद्यानात असलेल्या विविध मनोरंजन सोयींचे दरही ठरविण्यात आलेले आहे. केंद्र शासनाने जाहिर केलेल्या राष्ट्रीय वन्यजीव कृती आराखडा २००२-२०१६ मध्ये दिलेल्या मार्गदर्शक तत्वानुसार वन्यजीव अभयारण्य, राष्ट्रीय उद्यान आणि व्याघ्र प्रकल्प क्षेत्राचे अधिक सक्षमपणे व्यवस्थापनाकरीता राज्यात अशा क्षेत्रांसाठी पर्यटकांकडून सर्वसमाल दराने प्रवेश शुल्क आणि वाहन शुल्क आकारण्याबाबतचा निर्णय शासनाच्या विचाराधीन होता.

शासन निर्णय :

वरील प्रस्तावनेतील नमूद केलेल्या वस्तुस्थितीच्या अनुषंगाने राज्यातील सर्व वन्यजीव अभयारण्य, राष्ट्रीय उद्यान आणि व्याघ्र प्रकल्प क्षेत्रांस भेटी देणाऱ्या पर्यटकांकडून पुढील प्रमाणे प्रवेश शुल्क आणि वाहनशुल्क आकारण्यात यावे.

अ) पायी येणाऱ्या पर्यटकांसाठी प्रवेश शुल्क

१२ वर्षांपेक्षा जास्त वय असलेल्या व्यक्ती	रु.२०/- प्रति व्यक्ती
५ ते १२ वर्षांपर्यंतच्या मुलांसाठी	रु.१०/- प्रति व्यक्ती
५ वर्षांपेक्षा कमी वय असलेल्या मुलांसाठी	निःशुल्क
<u>ब) वाहनांमधून येणाऱ्या पर्यटकांसाठी प्रवेश शुल्क</u>	
१२ वर्षांपेक्षा जास्त वय असलेल्या व्यक्ती	रु.२०/- प्रति व्यक्ती
५ ते १२ वर्षांपर्यंतच्या मुलांसाठी	रु.१०/- प्रति व्यक्ती
५ वर्षांपेक्षा कमी वय असलेल्या मुलांसाठी	निःशुल्क

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वनसंरक्षण
पंच व्याघ्र प्रकल्प, मागदूर.
8/6

1. RAs/OCPS for Capt
2. Place a notice board
Bd

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(खाजगी चारचाकी मॉटरवाहनमधून येणाऱ्या पर्यटकांसोबत वन विभागाचे प्रमाणीत केलेल्या स्थानिक मार्गदर्शक (Guide) हा अनिवार्य राहिल व त्यास प्रति ट्रिप मागे रु.४०० या दराने पर्यटकांकडून मानधन देय राहिल.)

क) वाहन शुल्क

स्कुटर / रिक्षा	रु.१५/-
हलकी वाहने (कार, जिप्स)	रु.५०/-
जड वाहने (ट्रक, बस, ट्रॅक्टर)	रु.७५/-

संजय गांधी राष्ट्रीय उद्यान विभागात प्रभात फेरीसाठी येणाऱ्या पर्यटकांकडून संदर्भ क्र. ३ येथील शासन निर्णयप्रमाणे मासिक रु.१५/- किंवा वार्षिक रु.५०/- या दराने (ज्येष्ठ नागरिकांकडून रु.१/- प्रति वर्ष नाममात्र शुल्क) शुल्क आकारण्यात यावा.

उपरोक्त प्रवेश शुल्क वन्यजीव अभयारण्य, राष्ट्रीय उद्यान आणि व्याघ्र प्रकल्प क्षेत्रास भेटीदेण्याच्या उद्दिष्टाने येणाऱ्या पर्यटकांकडूनच वसूल करावा.

२६ जानेवारी, १ म व १५ ऑगस्ट या दिवशी सकाळी ८ ते दुपारी २ वाजेपर्यंत सर्व नागरिकांकरिता सर्व राष्ट्रीय उद्यान, वन्यजीव अभयारण्य व व्याघ्र प्रकल्प क्षेत्रात प्रवेश निःशुल्क राहिल.

हा शासन निर्णय वित्त विभागाच्या सहमतीने त्यांच्या अनौपचारिक संदर्भ क्रमांक प्र.क्र.१४०/०४/व्यय-१० दि. २६.२.२००४ ला अनुलक्षून निर्गमित करण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.


(संजीव गोडे)
उप सचिव

महसूल व वन विभाग

प्रत :-

- प्रधान सचिव (वित्त), मंत्रालय, मुंबई
- प्रधान मुख्य वनसंरक्षक, महाराष्ट्र राज्य, नागपूर.
- प्रधान मुख्य वनसंरक्षक (वन्यजीव), महाराष्ट्र राज्य, नागपूर. (१०५९)
- अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर.
- मुख्य वनसंरक्षक (संरक्षण), महाराष्ट्र राज्य, नागपूर
- मुख्य वनसंरक्षक (संधारण), महाराष्ट्र राज्य, नागपूर
- मुख्य वनसंरक्षक (प्रादेशिक) (सर्व) (ठाणे/पुणे/नाशिक/औरंगाबाद/नागपूर/अमरावती)
- मुख्य वनसंरक्षक (वन्यजीव), मुंबई/ नागपूर (१०५९ ५०५२)
- वनसंरक्षक (प्रादेशिक) (सर्व) (कोल्हापूर/उत्तर चंद्रपूर/दक्षिण चंद्रपूर/यवतमाळ/धुळे)
- वनसंरक्षक व क्षेत्रसंचालक, मेळघाट व्याघ्र प्रकल्प, अमरावती (१०५९)
- वनसंरक्षक व क्षेत्रसंचालक, पेंच व्याघ्र प्रकल्प, नागपूर (१०५९)
- वनसंरक्षक व क्षेत्रसंचालक, ताडोबा व्याघ्र प्रकल्प, चंद्रपूर (१०५९)

वनसंरक्षक (वन्यजीव), नाशिक (८१०५२)
जिल्हाधिकारी (सर्व)
उपवनसंरक्षक (प्रादेशिक) (सर्व)
उपवनसंरक्षक (वन्यजीव) (सर्व)
महालेखापाल १/२ (लेखा व अनुज्ञेयता)/(लेखापरीक्षा), मुंबई/नागपूर.
उप सचिव (व्यय-१०) वित्त विभाग, मंत्रालय, मुंबई
कक्ष अधिकारी, (व्यय-१०), वित्त विभाग, मंत्रालय, मुंबई.
वन कक्षातील सर्व कार्यासने
फ-१ कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई (निवडनस्ती)

क्रमांक - कक्ष - द्वा.लणे।
गा.पूर, दिवाळ -

प्रतिनिधी - सहा. कक्ष (सर्व) यांना महीती व आवश्यक कार्यवाहिये
अपेक्षित.

प्रतिनिधी - वनपरिक्षेक अधिकारी (सर्व) यांना महीती व आवश्यक कार्यवाहिये
रवाना - त्यांनी प्रवेरा शुल्कावकाश - दर नोटिये वेईकर लवावे

पेंच व्याघ्र प्रकल्प व्याघ्र संवर्धन, फाऊण्डेशन
नियामक मंडळाची बैठक, दि. १८/०६/२०१३
कार्यवृत्तांत

पेंच व्याघ्र प्रकल्प व्याघ्र संवर्धन, फाऊण्डेशन च्या नियामक मंडळाची बैठक, दि. १८/०६/२०१३ रोजी मा. वनमंत्री यांच्या अध्यक्षतेखाली संपन्न झाली. बैठकीस उपस्थित असलेल्याची यादी सोबत जोडण्यांत येत आहे. प्रधान मुख्य वनसंरक्षक (वन्यजीव) तथा पेंच व्याघ्र प्रकल्प व्याघ्र संवर्धन, फाऊण्डेशन नियामक मंडळाचे सदस्य सचिव यांनी उपस्थितांचे स्वागत करून व्याघ्र प्रकल्प फाऊण्डेशनचे बैठकीचे विषय समेसमोर मांडले. पेंच व्याघ्र संवर्धन फाऊण्डेशन संबंधी सदर बैठकीमध्ये खालीलप्रमाणे निर्णय घेण्यांत आले.

१. पेंच व्याघ्र प्रकल्प व्याघ्र संवर्धन फाऊण्डेशच्या रु. १६.०० लक्षाच्या सन २०१२-१३ मध्ये झालेल्या खर्चास मान्यता प्रदान करण्यांत आली. त्यामध्ये स्थानिक गावांचे ग्राम परिसर विकास कामे (स्वास्थ्य शिबीरांचे आयोजन, विशेष वैद्यकीय सेवा पुरविणे इत्यादी), स्थानिक गावकऱ्यांची क्षमता वृद्धी (बेरोजगारांना स्वरोजगारकरिता प्रशिक्षण देणे), वन्यजीव संशोधन, संनियंत्रण, कार्यालयीन खर्च इत्यादी त्यामध्ये समाविष्ट आहे.
२. पेंच टायगर कन्झर्वेशन फाऊण्डेशन मध्ये सन् २०१२-१३ या वर्षात एकूण रु. ४४.९४ लक्ष महसूल प्राप्त झाला. त्याप्रमाणे सन् २०१३-१४ करिता एकूण रु. ३६.६० लक्ष खर्चाचा अंदाजपत्रकास मान्यता प्रदान करण्यात आली. (सोबत सहपत्रीत करण्यात आलेली आहे.) कार्यकारी समिती मान्य अंदाजपत्रकामध्ये २५ टक्के पर्यंत बाबीमध्ये बदल करण्याचे अधिकार मान्य करण्यात आले.
३. सन् २०१०/११, २०११/१२ व २०१२/१३ लेखा सनदी लेखापाल यांचेकडून तपासून घेण्यात आले व त्यास पेंच टायगर कन्झर्वेशन फाऊण्डेशन नियामक मंडळ यांनी मान्यता दिली.
४. बोर व टिपेस्वर अभयारण्य प्रमाणे उमरेड करांडला अभयारण्य चे प्रवेश शुल्काचा महसूल सुध्दा पेंच टायगर कन्झर्वेशन फाऊण्डेशन मध्ये जमा करणे व प्रत्येक अभयारण्याचा महसूल त्या अभयारण्यामध्ये विकास कामाकरिता वापरण्यात यावा असे ठरले.

सभेमध्ये खालील प्रमाणे मुद्द्यावर चर्चा होवून सदर बाबी कार्यान्वीत करण्याच्या सुचना देण्यात आल्या.

अ. पेंच व्याघ्र प्रकल्पाकरिता प्रवेश शुल्कांमध्ये वृद्धी करण्याचा पूर्ण अधिकार प्रधान मुख्य वनसंरक्षक (वन्यजीव) यांना देण्यात आले आहे. त्यानुसार प्रवेश शुल्क रु. ७५/- प्रती प्रौढ व्यक्ती व १२ वर्षाखालील रूपये २५/- प्रती व्यक्ती आकारण्यात यावे. तसेच चारचाकी वाहनांकरिता वाहन शुल्क रु. ४००/- प्रती वाहन व मिनी बस करिता रु. ८००/- प्रती वाहन निश्चित करण्यात आले. सदर दर मानसिंगदेव अभयारण्य करिता सुध्दा लागू राहतील असे मान्य करण्यात आले.

बोर, टिपेश्वर व उमरेड क हाडला करिता प्रवेश शुल्क रु. ५०/- प्रती प्रौढ व्यक्ती व १२ वर्षाखालील रूपये २५/- प्रती व्यक्ती आकारण्यात यावे. तसेच चारचाकी वाहनांकरिता वाहन शुल्क रु. १००/- प्रती वाहन व मिनी बस करिता रु. २००/- प्रती वाहन निश्चित करण्यात आले. वाढिवे दर दिनांक १ ऑक्टोबर २०१३ पासून लागू करण्यात येतील.

ब. पदश्रेणी वाढे मुळे कार्यकारी समितीची फेररचना सध्या कार्यरत पदनामानुसार करण्यास मान्यता देण्यात आली.

क. संरक्षित क्षेत्र ज्या जिल्हयात आहे त्या जिल्हयातील शालेय विद्यार्थीकरिता प्रवेशशुल्क अर्जात/पूर्ण माफ करण्याचा अधिकार क्षेत्र संचालक यांना देणे बाबत मान्य करण्यात आले.

ड. स्थानिक महिला व बेरोजगार युवकांकरिता प्रकल्प क्षेत्रामध्ये रोजगार उपलब्ध करून देण्याकरिता आदिवासी विभागांमार्फत व्यवसायिक प्रशिक्षण देणे बाबत सुचना देण्यात आल्या.

इ. पेंच टायगर कन्झर्वेशन फाउंडेशनच्या खर्चाच्या अंदाजपत्रकाव्यतिरिक्त बाबींवर खर्च करण्यास कार्यकारी समितीचे अध्यक्ष कार्यकारी संचालक यांना मा.ना.आमदार रामटेक व सावनेर यांनी केलेली मागणीनुसार अधिकार प्रदान करण्यात आले व त्या खर्चास कार्यान्वीत मंजूरी नियामक मंडळाकडून घेण्याबाबत मान्यता देण्यात आली.

प्रधान मुख्य वनसंरक्षक (वन्यजीव)

तथा सदस्य सचिव

प्रधान सचिव (वने)

तथा उपाध्यक्ष

मा. मंत्री (वने)

तथा अध्यक्ष

plants or part or derivative thereof, so procured by him only in the premises approved by the Chief Wildlife Warden or the authorized officer.

(2) The licensee shall maintain a register in Form IX.

(3) The licensee shall ensure that the register required to be maintained by him under this rule has been brought up-to-date, before closing the business for the day.

(4) Every licensee shall submit monthly returns in Form X and a true copy of the entries made by him in the relevant register duly certified and signed by the him referred to in sub-rule (2) during the course of a month, to the Chief Wildlife Warden and authorized officer.

(5) The return under sub-rule (4) shall be submitted before tenth of every month following the month to which the return relates.

(6) The licence issued may be renewed by the Chief Wildlife Warden or the authorized officer on expiry of the period for which it was granted at first instance or renewed later on. For the purpose of renewal, the licensee shall submit application in the same form in which he had made it at the first instance for a new licence before fifteen days of the expiry of the period of licence.

(7) The Chief Wildlife Warden or the authorized officer after making enquiry in respect of those matters as he may think fit and is fully satisfied may grant renewal or reject the same.

(8) All relevant conditions in rules 13 and 14 shall apply *mutatis mutandis* in case of renewal of license also.

CHAPTER V

PROTECTED AREAS

(Sections 21, 22, 28, 31, 33-A, 34, 35)

16. *Claims to be made upon proclamation by the collector.*— Where the Collector who has been appointed by the State Government as per section 18B publishes the proclamation under section 21, any person claiming any right mentioned in section 19, may prefer before such Collector, within a period of two months from the date of such proclamation, his written claim in Form XI.

17. *Notice to the claimant.*—On receipt of the claim made under rule 16, the Collector or any other officer who has been appointed by the State Government as per section 18B, shall serve a notice upon the claimant requiring him to appear at such place and on such date, as may be specified in the notice, either in person or through an agent, authorized by him in this behalf, and to produce evidence, oral or documentary, in support of the claim.

18 (1). *Entry in a sanctuary or national park for purposes of section 28(1) (d) and (e).*—
(a) Every person desiring to enter any sanctuary or national park as may be determined by the State Government in this behalf, for the purpose of tourism or transaction of any lawful business with any person residing therein, shall obtain the necessary permit.

(b) A permit referred to in sub-rule (1) shall be in form XII and be issued by an officer authorized by the Chief Wildlife Warden in this behalf, on payment of a fee specified in sub-rule (3).

(c) *The fee in respect of the permit for entry shall be as follows, namely :—*

(i) In the case of Indian citizens, Rs. 30/- per head, per day.

(ii) In the case of persons other than Indian citizens, Rs. 60/-per head, per day.

(iii) In the case of students who are Indian citizens, Rs. 15/- per head, per day.

(iv) In the case of students who are other than Indian citizens, Rs. 30/- per head, per day.

(v) The rates prescribed in (iii) and (iv) above shall be applicable only on production of valid Identity Card in proof of the visitor being a student.

(vi) A child below five years shall be exempted from payment of the fee.

(vii) Person(s) specifically permitted by the Chief Wildlife Warden or the authorized officer shall be exempted from payment of the fee.

(d) The fee in respect of the permit for entry of vehicle shall be as follows, namely :

(i) In respect of a light motor vehicle, such as a car or jeep, Rs. 100/- per vehicle, per day ;

(ii) In respect of a heavy motor vehicle, such as a bus, lorry or truck, Rs. 150/- per vehicle, per day ;

(iii) In respect of motorcycle or tricycle, including motor scooters and cycle with attachment, for propelling the same by mechanical power, Rs. 25/- per vehicle, per day.

(iv) Vehicle(s) used by person(s), specifically permitted by the Chief Wildlife Warden or authorized officer shall be exempted from payment of the fee.

(e) The fee for operating a camera shall be as follows, namely :—

(i) In the case of a still camera to be operated by an Indian citizen, Rs. 100/- per camera, per day,

(ii) In the case of a still camera to be operated by visitors other than an Indian citizen, Rs. 200 per camera, per day.

(iii) In the case of a cine-camera to be operated by an Indian citizen, Rs. 250/- per camera, per day.

(iv) In the case of a cine-camera to be operated by visitors other than an Indian citizen, Rs. 500/- per camera, per day.

(v) These fees for operating camera are for the purpose other than commercial use. Use of such photograph or cine-output for commercial purpose is prohibited without prior written permission of the Chief Wildlife Warden or the authorized officer.

(f) A permit referred to in sub-rule (1), shall be valid for the period specified therein.

18 (2). *Entry in a sanctuary or a national park for the purposes of section 28 (1) (a), (b) and (c).—*

(a) Every person desiring to enter a sanctuary or national park, for the purpose of investigation or study of Wildlife and purpose ancillary or incidental thereto or for professional photography or scientific research, shall obtain a permit from the Chief Wildlife warden or an authorized by him.

(b) *The fee for operating a camera, where photography is for scientific research, investigation and study of wildlife and purposes ancillary or incidental thereto, shall be as follows, namely :—*

(i) In the case of a still camera to be operated by Indian citizens not exceeding five in number, Rs. 500 per camera, per day, and in the case of other persons not exceeding five in number, Rs 1000/- per camera, per day.

(ii) In the case of a cine-camera, where it is to be operated by Indian citizens not exceeding five in number, Rs.5,000/- per camera, per day, and in the case of other persons not exceeding five in number, Rs. 10,000/- per camera, per day.

(iii) Camera used for the study of wildlife, specifically permitted by the Chief Wildlife Warden shall be exempted from payment fee.

(c) *The fee for operating a camera, where photography is for professional purpose, shall be as follows, namely :—*

(i) in the case of a still camera to be operated by an Indian citizen, Rs. 2,500/- per camera, per day and in the case of other persons, Rs. 5,000/- per camera, per day.

(ii) in the case of a cine-camera to be operated by an Indian citizen, Rs. 10,000/- per camera, per day, and in the case of other persons, Rs. 20,000/- per camera, per day.

(d) *The fee for operating a camera, where photography is for or in connection with commercial movies, shall be as follows, namely :—*

(i) For shooting in Mini Train and related sites in Sanjay Gandhi National Park, Rs. 45,000/- per day per party ;

(ii) For shooting Lion and Tiger safari area and in the vicinity of the Log-Hut in Sanjay Gandhi National Park, Rs. 40,000/- per day per party ;

(iii) For shooting in Nursery, Gandhi Temple and other sites in Sanjay Gandhi National Park, Rs. 25,000/- per day per party ;

(iv) For shooting in other sanctuaries or national parks in the State, Rs. 25,000/-per day, per party.

(e) The fee specified in sub-rule (2) shall be payable in advance.

(f) For professional photography and commercial movies in addition to the above fee, a deposit of Rs. 10,000 shall be recovered in advance. The same shall be refunded with due regard to the fulfillment of the terms and conditions laid down in this behalf.

(g) The permit referred to in the sub-rule (2) shall be in form XIII.

18(3). All the fees mentioned in sub-rule (1) and (2) shall be increased by ten percent every year from the 1st January of that year.

18(4). These rates shall not be applicable in case of a Tiger Reserve and the Tiger Conservation Foundation constituted under section 38 X shall regulate entry to a tiger reserve.

18(5). *General conditions governing the issue of permits.*---(a) The permit shall not entitle any person to free accommodation in any Government building, situated within the limits of the sanctuary or national park.

(b) Any officer or employee of the Forest Department on duty or an officer appointed under sub-section (1) of section 4, may require any person to stop within the limits of the sanctuary or national park, as the case may be, or at the entrance gate, for the purpose of checking and may demand for inspection, the permit granted under this chapter. Every person so required to stop, shall stop when called upon to do so and shall produce the permit for inspection.

(c) No person shall be allowed to enter a sanctuary or a national park with any weapon or ammunition, except with the prior permission in writing, of the Chief Wildlife warden or any other officer authorized in this behalf.

18(6). *Cancellation of permit.*—Where a holder of a permit referred to in aforesaid sub-rules commits a breach of any of the provisions of the Act or the rules thereunder or of any of the conditions specified in a permit, the Chief Wildlife Warden or the officer in charge of a sanctuary or national park may, after recording his reasons in writing, may cancel the permit.

19. *Power to exempt.*—Where the State Government considers it necessary or expedient so to do in the public interest, it may, by order, exempt any person or class of persons from payment of any fee payable under rule 18.

20. *Immunization of Livestock.*— (1) The Chief Wildlife warden or the authorized officer may direct the concerned local authorities of the area falling inside or within five kilometers of Sanctuary or National Park, as the case may be to submit detailed information regarding cattle in possession of each person in the said area under the jurisdiction of such local authorities once in a year.

(2) The Chief Wildlife Warden or authorized officer may direct the officer-in-charge of the Animal Husbandry and/or any other authority responsible for immunization of cattle in the District to carry out immunization of the entire cattle population in villages falling inside or within five kilometers of Sanctuary or National Park in a time bound manner.

(3) The Chief Wildlife Warden or authorized officer may direct to cancel grazing permission within the Sanctuary in respect of any cattle which has not been immunized within the period specified in sub-rule (2).

(4) The officer-in-charge of the Animal Husbandry and / or any other authority responsible for managing veterinary services to livestock in the District shall report any outbreak of communicable diseases of the livestock to the concerned authorized officer.

21. *Registration of certain persons in possession of arms.*— (1) Every person residing in or within ten kilometers of a sanctuary or National Park and holding a licence granted under the Arms Act, 1959, or exempted from the provisions of that Act and possessing arms, shall apply in Form XIV accompanied with a fee of Rs 500/- for such registration to the officer-in-charge of the sanctuary or National Park for registering his name.

(2) (a) On receipt of an application under sub-rule (1), the officer-in-charge of the sanctuary or National Park shall, after making such inquiry as he may deem fit, register the name of the applicant in Form XV.

(b) A register shall be maintained for this purpose and separate page in the register shall be allotted to every person whose name is so registered.

(3) Where the holder of a licence granted under the Arms Act, 1959 or exempted from the provisions of that Act and possessing Arms,—

(a) commits any offence under the Act or the rules made thereunder, the officer-in-charge of the sanctuary or National Park shall make an entry to that effect in the register and where such officer is satisfied that such person has committed the said offence, on occasions more than one, he may take steps as he considers necessary, to move the authority concerned for cancelling the licence, held by the licensee under the Arms Act, 1959.

(b) transfer his arms to another person by way of sale, gift or otherwise, he shall intimate the officer-in-charge of sanctuary or National Park, of the same within a period of fifteen days of such transfer.

(c) changes his residence to another place within ten kilometers of such sanctuary or National Park or changes his residence to a place beyond such distance, he shall intimate his new address and other relevant details to the officer-in-charge of sanctuary or National Park, within fifteen days from the date of such changes.

(4) Where the holder of licence granted under the Arms Act, 1959 or exempted from that Act and possessing arms, dies, his successor or legal representative shall, as soon as possible, after such death, intimate the fact to the officer-in-charge of the sanctuary or National Park.

CHAPTER VI

TRADE OR COMMERCE IN WILD ANIMALS, ANIMAL ARTICLES AND TROPHIES

(Sections 40, 41, 43, 44, 45, 47, 48, 48-A, 49, 49-A, 49-B, 49-C)

22. *Inquiry and preparation of inventories.*— (1) As regards a declaration made under rule 35 of the Wildlife (Protection) (Maharashtra) Rules, 1975 or under sub-section (1) of section 40 or section 40A, or under any notification issued by the State Government under sub-section (4) of section 40, the Chief Wildlife Warden or the authorized officer, shall give a notice in Form XVI to the person making the declaration, as to the date and time on which he shall enter upon his

FORM XIII

[See rule 18 (2) (g)]

ENTRY IN SANCTUARY OR NATIONAL PARK FOR PURPOSES OF SECTION 28(I)(a), (b) AND (c)

(Not transferable)

(To be returned to the issuing authority within fifteen days of the expiry of Permit together with details of the business transacted using this permit)

Permit No. _____ Date _____

Name of National Park/ Sanctuary/ Others : _____

Subject to the provisions of the Wildlife (Protection) Act, 1972 and the rules made thereunder and subject to the conditions hereinafter mentioned, permission is hereby granted under section 28(I) for entry/ residing in National Park/ Sanctuary for purpose stated below to —

1. Name : _____

2. Address : _____

3. Name and designation of contact person (in case of organization) : _____

4. And the party consisting of (maximum _____ persons assisting the permit holder) :

(i) Name : _____, address _____

And any other person permitted by Officer-in-charge of the Protected Area to be included in party subject to maximum number of persons stated above.

5. For period from ___/___/___ to ___/___/___ (both days inclusive) to enter into National Park/ Sanctuary named above.

6. for the purpose of (Type in bold/ encircle whichever is applicable ; strike out others) :

(i) Scientific research or investigation other than study of wildlife ;

(ii) Study of wildlife and purposes ancillary and incidental thereto ; or

(iii) Commercial photography (including filming, videography or preparing documentary)

Title of the Project : _____

Activities permitted under this permit : _____

7. Particulars of fee deposited in digits and words : _____

8. This permit shall be subject to the following conditions :—

(1) The permit holder shall not be entitled to free accommodation in any Government building within the limits of the Sanctuary or National park.

(2) The permit holder shall abide by the relevant provisions of the Wildlife (Protection) Act, 1972 as amended from time to time and the rules made thereunder.

(3) The permit shall not entitle the holder to hunt and trap any animals/ birds without a valid special purpose permit.

(4) The permit holder and each member of his party shall carry a valid identity card as specified by the officer-in-charge of the National Park/ Sanctuary.

- (5) In case of exemption of fees for operating camera inside Sanctuary or National Park for the purpose of study of Wildlife, use of such photograph or cine-output for any commercial purpose or monetary gain in any manner without prior written permission of the Chief Wildlife Warden or an Officer so authorized is prohibited.
- (6) The Chief Wildlife Warden or authorized officer may specify additional conditions for use of this permit for study, professional photography and/or scientific research. Such specified conditions shall deem to be included as conditions of this permit.
- (7) The permit holder shall abide by relevant provisions of the Wildlife (Protection) Act, 1972 and the rules made there under as well as additional conditions including appropriate conduct, if any, declared by the Officer-in-charge of the National Park or Sanctuary and as applicable at the time of entry.

Place and date : _____

Signature of the Issuing Authority,
Name and designation.



APPENDIX - X

वन्यप्राण्यांपासून पिकांचे, फळझाडांचे झालेले नुकसान आणि मनुष्य व पाळीव प्राण्यांच्या झालेल्या हानीसाठी नुकसान भरपाई देण्याबाबत...

महायुद्ध शासन
शासन निर्णय क्र. डब्ल्यूएलपी- १००८/प्र.क्र.२७०/फ-२
महसूल व वन विभाग,
मंत्रालय, मुंबई ४०० ०३२
दिनांक : ०२.०७.२०१०

- पहा - १) शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी- ६०४/प्र.क्र.२१५/फ-२, दि. २३.८.२००४.
२) शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००८/प्र.क्र.२१९/फ-२, दि. २६/१२/२००६.
३) शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००२/ प्र.क्र.२५८/फ-२, दि.१३/११/२००३.
४) शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००२/ प्र.क्र.२५८/फ-२, दि.२०/५/२००३.
५) शासन निर्णय, महसूल व वन विभाग, क्र.डब्ल्यूएलपी-१००४/प्र.क्र.२२०/फ-२, दि.३०/७/२००४

प्रस्तावना :-

वन्यप्राण्यांकडून शेतेपिकांचे नुकसान झाल्यास दि. २३.८.२००४ रोजी शासन निर्णयानुसार तरतुदीनुसार नुकसान भरपाईची रक्कम मंजूरितान्त अदा करण्यात येत. सदर अधिका मरत वमी अंतर्गतमुळे वन्यप्राण्यांपासून होणाऱ्या नुकसानभरपाईमध्ये समाविष्ट करणाऱ्यांचे वन्यप्राण्यांच्या विचाराधीन होती तसेच वासादी वन्यप्राण्यांपासून पिकांचे, फळझाडांचे, मनुष्य व पशुधन्यांच्या झालेल्या नुकसानभरपाईबाबत सर्वसमावेशक शासन निर्णय निर्गमित करण्याचा वध संज्ञेत शासनाच्या विचाराधीन होती त्यानुसार शासनाने पुढीलप्रमाणे निर्णय घेतला आहे.

शासन निर्णय :-

अ) राश्यातील **रानडुक्कर, हरिण (सारंग व कुरंग), रानगवा, रोही (निलगाय), माकड** तसेच **वन्यहत्ती** या वन्यप्राण्यांपासून शेततील पिकांच्या नुकसानीची भरपाई खालीलप्रमाणे आणि पाळीन देण्यात यावी.

अ.क्र.	बाब	हावयाची अधिक मदत
१	नुकसान रु.२०००/- पर्यंत झाल्यास	पूर्ण परंतु किमान रु. ५०००/-
२	नुकसान रु.२,००१/- ते १०,०००/- पर्यंत झाल्यास	रु.२०००/- अधिक व्यापका जास्तच्या नुकसानीच्या ५०% रक्कम (रु.६,०००/- च किमान मर्यादत)
३	नुकसान रु.१०,०००/- पेक्षा जास्त झाल्यास	रु.६,०००/- अधिक रकम १०,०००/- पेक्षा जास्त नुकसानीच्या १०% रक्कम (रकम १५,०००/- च किमान मर्यादत)
४	ऊस	रु.४००० प्रति मेट्रन

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त्याचप्रमाणे चव्यहत्ती व रानगव्य शंती फळवागांच्या केलेल्या नुकसानीबाबत खालीलप्रमाणे अर्थसहाय्य देण्यात यावे.

फळशाई	शाब	शाब्याची आर्थिक मदत
	नागव	₹.२,०००/- प्रति झाड
	सुपारी	₹.१,२००/- प्रति झाड
	कलमी आंबा	₹.१,६००/- प्रति झाड
	केळी	₹.६८०/- प्रति झाड
इतर फळशाई		₹.२००/- प्रति झाड

१. पिक नुकसानीची तक्रार अधिकारक्षेत्र असलेले नजीकचे वनरक्षक, वनपाल अगर वनपरिक्षेत्राधिकारी यांचेपैकी कोणाकडेही घटना पडल्यापासून तीन दिवसात करावे.
२. त्याची प्रतानिशा संबंधित वनपाल, परपंच, ग्रामसेवक/तलाठी व कुठो अधिकारी/फलोत्पादन अधिकारी या चार सरस्यांच्या सांमतीमाफत १० दिवसांच्या आत करण्यात येईल. त्यासाठी जाणवर जाउन पंचनामा करणे, नुकसान क्षेत्राची मोजणी करणे, पुढचे तपासण व नुकसानीचे मूल्य ठरविणे हे या सांमतीकडून अपेक्षित आहे.
३. प्रत्येक प्रकरणी नुकसान भरपाई देण्याचे आदेश संबंधित उपवनसंरक्षक यांनी घटनेच्या तारखेपासून ३० दिवसांचे आत काढावे.
४. उपवनसंरक्षक यांनी आदेश काढल्यानंतर एक महिन्याचे आत बांधित व्यक्तीस रकमेचा रय्यांकृत धनादेश हस्तान्तरित करावा.
५. ऊस पिकाचे नुकसानीसाठी ₹.४०० प्रति मेट्रिक असे वजनावर आधारीत न ठेवता ज्या तानुवधानाचे ऊस पिकाचे नुकसान होईल त्या तानुवधाच्या मागील ८ वर्षांची कुठो विभागाने काढलेल्या उसाच्या उत्पादकतेवरून सरासरी उत्पादकता काढावी व त्यानुसार ऊस पिकाची नुकसान भरपाई देण्यावर आधारीत उत्पादकतेनुसार (प्रती मेट्रिक ₹.४००/- प्रमाणे) गणना करून देण्यात यावी.
६. ज्या व्यक्तींना पीक संरक्षणार्थ बंदूक परवाने देण्यात आले आहेत अशा व्यक्तींच्या शंतीस नुकसान भरपाई विहील दराने चव्यहत्ती किंवा रानगव्या किंवा इतर चव्यप्राणा यांना इजा किंवा त्यांची शिकार संकेदीताकडून झाली नसल्यास अनुज्ञेय राहिल.
७. ही मदत प्रती हेक्टरी न राहता प्रत्यक्षात झालेल्या नुकसानीवर आधारीत राहिल.
८. सदरची मदत कसत असलेल्या शेतक-यास / मालकास देय राहिल.
९. सदर आर्थिक मदत ही या संदर्भात शासन निर्णय निर्गमित झाल्यापासूनच्या प्रकरणांमध्ये लागू करण्यात यावे.

खालील प्रकरणे नुकसानभरपाईसाठी अपात्र राहतील .

- १) वनहॉमिनीवर आतक्रमणाद्वारे करण्यात येणारी शंती
- २) भारतीय वन अधिनियम किंवा चव्यजीव (संरक्षण) अधिनियमांतगत ज्यांचे विक्रम गुन्हा नोंदीकला गेला आहे अशा व्यक्तींचे शंती.

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३) ज्या कुटुंबाची ४ पेक्षा अधिक भूरे मुक्त भराईसाठी जंगलाले जाताने त्या कुटुंबाची शक्ती.

४) मागील एक महिन्याचे काळात वन्यप्राण्यांच्या शिकारीची घटना झालेली गावे.

घ) वन्यप्राण्यांच्या हल्ल्यामुळे व्यक्ती जखमी/मृत आणि पशूनाची झालेली हानी - खाद्य, पिबदूध, अस्वल, गव्हा (बाधसन), रानडुकर, लाडगा, तरस, काळा, हत्ती, भंगर व रानकूच (हाल) यांच्या हल्ल्यामुळे व्यक्ती जखमी/मृत झाल्यास किंवा पशूनाचा मृत्यू झाल्यास खालील प्रमाणे आणि अटीवर नुकसान भरपाई देण्यात येईल.

१) व्यक्ती जखमी/मृत झाल्यास

अ.क्र.	तपशील	दर आर्थिकदृष्ट्याची रक्कम
१	व्यक्ती मृत झाल्यास किंवा कायमधे अर्थातच आल्यास	रु. २,००,०००/- (रु. दोन लाख फक्त)
२	व्यक्ती गंभीररित्या जखमी झाल्यास	रु. ५०,०००/- (रु. पन्नास हजार फक्त)
३	व्यक्ती किरकोळ जखमी झाल्यास	औषधोपचारासाठी येणाऱ्या खर्चासह रुग्णालयात यात्रा, मात्र खाजगी रुग्णालयात औषधोपचार करणे असल्यास अस्तित्वास त्याची मर्यादा रु. ७,५००/- (रु. सत्तन हजार पाचशे फक्त) पर्यंत व्यक्ती अग्नी राहिल. शक्यते औषधोपचार शासकीय / जिल्हा जरीवर रुग्णालयात करावा.

अटी :-

- वन्यप्राण्यांकडून झालेला हल्ला हा सदर व्यक्तीने वन्यजीव (संरक्षण) अधिनियम, १९७२ च्या तरतुदीचा भंग करताना झालेला नसावा.
- हल्ला झालेल्या व्यक्तीने अथवा त्याच्या नातेवाईक / मित्रांनी हल्ला झाल्यापासून ४८ तासांच्या आत नजिकच्या वन अधिकार्यांना / कर्मचाऱ्यांना कळवावे.
- हल्ला झाल्यापासून तीन दिवसांच्या आत स्थानिक पोलीस अधिकारी अथवा वनाधिकारी यांनी प्रत्यक्ष जागेवर जाऊन झालेल्या हल्ल्याचा पंचनामा करावा. पंचनामा करणारा अधिकारी पोलीस उपनिरीक्षक वा वनसंरक्षण यांच्या दजोपक्षा खालच्या दर्जाचा नसावा.
- वन्यप्राण्यांकडून झालेल्या हल्ल्यामुळे सदर व्यक्ती मृत अथवा जखमी झाला हे तपासण्याकरिता देण्यात येणारे वैद्यकीय प्रमाणपत्र सक्षम राजपत्रित वैद्यकीय अधिकारी, जी शासकीय रुग्णालयाचा प्रमुख आहे व ज्याचा दर्जा वैद्यकीय अधिकार्याच्या (मॅडीकल ऑफिसर) खालचा नाही असा अधिकारी प्रमाणपत्र देण्यास सक्षम अधिकारी मानला जावा.

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- ५) अन्यप्राण्यांच्या हत्येमुळे मृत व्यक्तीकरिता ह्यावयचे आर्थिक सहाय्य त्या व्यक्तीच्या कायदेशीर वारसात्ताच (Legal Heir) देण्यात यावे.
- ६) अन्यप्राण्यांच्या हत्येमुळे जखमी झालेल्या व्यक्तीला देण्यात येणारी आर्थिक सहाय्याची रक्कम रूंद जखमी व्यक्तीलाच देण्यात यावी.
- ७) जखमी झालेल्या व्यक्तीला अथवा मृत झालेल्या व्यक्तीच्या वारसाला देण्यात येणारी आर्थिक सहाय्याची रक्कम मजूर कर्मणारा अधिकाारी उप वनसंरक्षक / द्विभागीय वन अधिकाारी या वनाधिकार्यांच्या दर्जापेक्षा खालच्या दर्जाचा नसावा.
- ८) अर्थसहाय्याची रक्कम केवळ रजिस्ट्रार कार्यालयात अदा करण्यात यावी.

ii) पशुघनाचा भुव्यु / अपग / जखमी झाल्यास

अ.क्र.	पशुघनाचे (पाक्रीव प्राण्याचे) नाव	देय अर्थसहाय्याची रक्कम
१	गाय, भेंस, बैल यांचा भुव्यु झाल्यास	खानार भाव किमतीच्या ७५% किंवा रु. १०,०००/- (रु. दहा हजार फक्त) यापैकी कमी असणारी रक्कम.
२	मेंढी, बकरा व इतर पशुघन* यांचा भुव्यु झाल्यास *प्रत्येकी (संरक्षण) अधिनियम, १९७२ मधील कलम २ (१८-अ) प्रमाणे	खानार भाव किमतीच्या ७५% किंवा रु. ३,०००/- (रु. तीन हजार फक्त) यापैकी कमी असणारी रक्कम.
३	गाय, भेंस, बैल या जनावरांना कायम आगमन आल्यास	खानार भाव किमतीचे ५०% किंवा रु. ३,०००/- (रु.पे तीन हजार फक्त) या पैकी कमी असणारी रक्कम.
४	गाय, भेंस, बैल, मेंढी, बकरा व इतर पशुघन जखमी झाल्यास	अपघातपेक्षा जास्त येणारा खर्च देण्यात यावा. अपघातपेक्षा जास्त खर्च / जखमी परिचर पशुचिकित्सालयात करण्यात यावा. देय रक्कम मर्यादा खानार भावाचे २५ टक्के किंवा रु.१५०० (एक हजार फक्त) प्रति जनावर यापैकी कमी असणारी रक्कम. उक्त नुकसान धरण्यात पशुवैद्यकीय अधिकार्याने दिलेल्या प्रमाणपत्राचे आधारे देण्यात यावी.

सर्व अर्थसहाय्य खालील अटी व शर्तीच्या अधीन राहून अनुज्ञेय असेल.

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- १) जनावर मालकाने जनावर मेल्यापासून किंवा घटना घडल्यापासून ४८ तासांच्या आत जवळील वन अधिकार्याला / कर्मचाऱ्याला कळविले पाहिजे.
- २) वन्यप्राण्याने ज्या ठिकाणी जनावर मारले असेल त्या ठिकाणावरून जनावराचे शव लोकांनी हलकिल्या कामा नये.
- ३) जनावराचा ज्या ठिकाणी मृत्यू / जनावर जाडुमी / अपंग झाले असेल त्या ठिकाणापासून १० कि.मी. भागात कापल्याही वन्यप्राण्याचा ६ दिवसांपर्यंत विष दडन मृत्यू झालेला नसावा.
- ४) हलक्याची बातमी मिळाल्यानंतर संबंधित वनपाल यांनी प्रत्यक्ष जागेवर जाऊन तालुका पातळीवर घटनामात्र करवा. तथापि जनावराचा मृत्यू कोणत्या वन्यप्राण्याचे हलक्याने झाला याची तपासणी वनक्षेत्रपाल दर्जाच्या अधिकाऱ्याकडून करण्यात येऊन द्यावयाची नुकसान भरपाई रकमेची न्यायिकदून ठरविण्यात यावी.
- ५) जनावर मालकाला देण्यात येणारी नुकसान भरपाईची रक्कम मंजूर करणारा अधिकारी उपवनसंरक्षक / विभागीय वन अधिकारी या दर्जापेक्षा खालच्या दर्जाचा नसावा.
- ६) संबंधितास देण्यात येणाऱ्या अर्थसहाय्याची रक्कम रेखांकित धनदेशाद्वारे देण्यात यावी.

क) गिधाडाद्वारे होणाऱ्या नारळाची नुकसान भरपाई :- गिधाडाद्वारे प्रजननासाठी नारळाच्या झाडाचा मोठ्या प्रमाणात वापर केला जात असल्याने घट्टवामधोल गिधाडाच्या विजेमुळे नारळाचे रूपस घटल व शेतकऱ्यांचे नुकसान होते. त्यामुळे शेतकरी अशा झाडांवर असलेली घट्टी नाट करून घ्यावे व त्यावेळी त्यामुळे गिधाडाची अडी - चिल्ले नाट होतात. गिधाडाची घट्टी असलेल्या नारळ झाडासाठी प्रती हेगाम खालीलप्रमाणे व पूर्वील अटीवर नुकसान भरपाई देण्यात यावी :-

- १) नारळाचे भागोल हेगामातील प्रती झाडे उत्पादन संबंधित कृषि अधिकाऱ्याकडून उपलब्ध करून घ्यावे. त्यानुसार ज्या झाडांवर गिधाडाचे घट्टे असले त्या झाडांच्या उत्पादनात घटणू हेगामात ३ झालेली घट्टे विचारात घेऊन प्रति नारळ रु. ७०/- प्रमाणे नुकसान भरपाई परिगणित करण्यात यावी.
- २) देण्यात येणारी नुकसान भरपाई प्रति हेगाम प्रति झाडे रु. ४००/- पेक्षा अधिक असता कामा नये.
- ३) गिधाडाचे घट्टे नारळाचे झाडावर असल्याचे आढळल्यावर शेतमालकाने तसे स्थानक वनपरिक्षक कार्यालयस कळवावे. सदर बाबीची वनक्षेत्रपाल दर्जाच्या अधिकाऱ्याने झाडी काल्यावर नुकसान भरपाईचे मान्यतेबाबतचा निष्पत्ती संबंधित उपवनसंरक्षक यांच्या मान्यतेनेतर अजिदागम कळविण्यात येईल.
- ४) गिधाडाच्या खणीचा हेगाम संपेपर्यंत शेतमालकाने घट्टेवाम संरक्षण घ्यावे. याबाबत पाहणी करून खात्री झाल्यावर नुकसान भरपाई देण्यात येईल.
- ५) अर्थसहाय्याची रक्कम केवळ रेखांकित धनदेशाद्वारे अदा करण्यात यावी.

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३) उपरोक्त दि. २३/८/२००४, दि. २६/२००६, दि. १७/२/२००८, दि. २०/५/२००८ व दि. ७/७/२००८ चे शासन निर्णय प्रस्तुतचा शासन निर्णय निर्गमित झाल्याच्या दिनांकापासून अधिकमित करण्यात येत आहेत.

४) मंदार शासन निर्णय, निर्गमित झाल्याच्या दिनांकापासून लागू करण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

(शिरीष राणे)

शिरीष कापे अधिकारी

महामूल्य व वन विभाग

प्रत माहिली आणि उपवन कार्यवाहीसाठी

मा. मुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे प्रधान सचिव.
मा. उपमुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे सचिव.
मा. सरो (वन), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
मा. राज्यमंत्री (वन), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
मुख्य सचिव, महाराष्ट्र राज्य, मंत्रालय, मुंबई.
प्रधान सचिव, नियोजन विभाग, मंत्रालय, मुंबई.
प्रधान सचिव, वित्त विभाग, मंत्रालय, मुंबई.
प्रधान सचिव (कृषी), कृषी व पशु विभाग, मंत्रालय, मुंबई.
महामंडालक, माहिली व प्रसिध्दी, मंत्रालय, मुंबई.
प्रधान मुख्य वनसंरक्षक, महाराष्ट्र राज्य, नागपूर.
प्रधान मुख्य वनसंरक्षक (वन्यजीव), म.रा. नागपूर.
अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर.
व्यवस्थापकीय संचालक, महाराष्ट्र राज्य वनविकास महामंडळ, नागपूर.
संचालक, सामाजिक वनीकरण संचालनालय, म.रा. पुणे.
मुख्य वनसंरक्षक (प्रादेशिक), सर्वे.
मुख्य वनसंरक्षक (वन्यजीव) नागपूर / मुंबई (बॉटॅनिकी)/नाशिक
वनसंरक्षक (वन्यजीव), पुणे / कोल्हापूर / नाशिक
वनसंरक्षक, बवल्हेपूर, उत्तर चंद्रपूर, दक्षिण चंद्रपूर
वनसंरक्षक तथा क्षेत्र संचालक, मंत्रालय व्याघ्र प्रकल्प, अन्नारवली
वनसंरक्षक तथा संचालक, संजय गांधी राष्ट्रीय उद्यान, चोरिवली
वनसंरक्षक तथा क्षेत्र संचालक, पंच व्याघ्र प्रकल्प, नागपूर
वनसंरक्षक तथा क्षेत्र संचालक, तांडोबा अभयारी व्याघ्र प्रकल्प, चंद्रपूर
सर्वे पोलिस आयुक्त
सर्वे वनवाहिनीकारी
उपवनसंरक्षक (प्रादेशिक) सर्वे
उपवनसंरक्षक (वन्यजीव), डाण-गारिया/अकोला/आलापल्ली चंद्रपूर स्थित/ओरंगाबाद
उपनिवासीय वन अधिकारी, सांगली/उस्मानाबाद/बीड/धोर/चिचडूण/संगमनेर/मालगाव/हिंगोली.
सर्वे पोलिस अधीक्षक
सर्वे जिल्हा कृषी अधिकारी

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वन्यप्राण्यांपासून शेतपिकांचे, फळझाडांचे
नुकसान झाल्यास संबंधितास नुकसान भरपाई
देण्याबाबत...

महाराष्ट्र शासन

शासन निर्णय क्रमांक : डब्ल्युएलपी-२०१२/प्र.क्र.३२६/फ-१,

महसूल व वन विभाग,

मंत्रालय, मुंबई-४०००३२

दिनांक : ५ सप्टेंबर, २०१३.

- पहा : १. शासन निर्णय, महसूल व वन विभाग, क्रमांक-डब्ल्युएलपी-१०.०८/प्र.क्र.२७०/फ-१, दिनांक २.७.२०१०.
२. प्रधान मुख्य वनसंरक्षक (वन्यजीव), महाराष्ट्र राज्य, नागपूर यांचे पत्र क्रमांक-कक्ष-२३(३)/प्र.क्र.०२३/
३१८६/२०१२-१३, दिनांक २०.११.२०१२

प्रस्तावना :-

राज्यातील रानडुक्कर, हरिण (सारंग व कुरंग), रानगवा, रोही (निलगाय), माकड तसेच वन्यहत्ती या वन्यप्राण्यांपासून शेतपिकाला किंवा फळबागांना नुकसान झाल्यास दिनांक २.७.२०१० रोजीच्या शासन निर्णयामधील तरतुदीनुसार नुकसान भरपाईची रक्कम संबंधितांना अदा करण्यात येते. सदर नुकसान भरपाई पुरेशी नसल्याबाबत जनप्रतिनिधींकडून, शेतकऱ्यांकडून शासनाकडे तक्रारी येत असतात. राज्यातील रानडुक्कर, हरिण (सारंग व कुरंग), रानगवा, रोही (निलगाय), माकड, वानर तसेच वन्यहत्ती या वन्यप्राण्यांपासून शेतपिकाला किंवा फळबागांना नुकसान झाल्यास नुकसानभरपाईमध्ये समुचित वाढ करण्याची बाब शासनाच्या विचाराधीन होती. त्यानुसार शासनाने पुढीलप्रमाणे निर्णय घेतला आहे.

शासन निर्णय :-

अ) राज्यातील रानडुक्कर, हरिण (सारंग व कुरंग), रानगवा, रोही (निलगाय), माकड, वानर तसेच वन्यहत्ती या वन्यप्राण्यांपासून शेतपिकाला किंवा फळबागांना नुकसान झाल्यास खालीलप्रमाणे वाढीव नुकसान भरपाई देण्यात यावी.


शेतपिक

अ.क्र.	बाब	द्यावयाची आर्थिक मदत
१	नुकसान रुपये २०००/- पर्यंत झाल्यास	पूर्ण परंतु किमान रुपये ७००/-
२	नुकसान रुपये २,००१/- ते रुपये १०,०००/- पर्यंत झाल्यास	रुपये २०००/- अधिक त्यापेक्षा जास्तीच्या नुकसानीच्या ७५ % रक्कम (रुपये ८,०००/- चे कमाल मर्यादित)
३	नुकसान रुपये १०,०००/- पेक्षा जास्त झाल्यास	रुपये ८,०००/- अधिक रुपये १०,०००/- पेक्षा जास्त नुकसानीच्या ४०% रक्कम (रुपये १८,०००/- चे कमाल मर्यादित)
४	ऊस	रुपये ४०० प्रति मे.टन

फळबाग

बाब	द्यावयाची आर्थिक मदत
फळझाडे	
नारळ	रुपये २,४००/- पर्यंत प्रति झाड
सुपारी	रुपये १,४००/- पर्यंत प्रति झाड
कलमी आंबा	रुपये १,८००/- पर्यंत प्रति झाड
केळी	रुपये ६०/- पर्यंत प्रति झाड
इतर फळझाडे	रुपये २५०/- पर्यंत प्रति झाड

- ब) इतर अटी व तरतूदी दि. २.७.२०१० च्या शासन निर्णयाप्रमाणू लागू राहतील.
- क) सदर शासन निर्णय, निर्गमित झाल्या च्या दिनांकापासून लागू करण्यात येत आहे.
- ड) सदर शासन निर्णय वित्त विभागाचे सहमतीने निर्गमित करण्यात येत आहे.
महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.


(डॉ. यु. एम. फारूकी)
सह सचिव (वने)

प्रत माहिती आणि उचित कार्यवाहीसाठी

- मा.मुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे प्रधान सचिव.
मा.उपमुख्यमंत्री, महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे सचिव.
मा.मंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
मा.राज्यमंत्री (वने), महाराष्ट्र राज्य, मंत्रालय, मुंबई यांचे खाजगी सचिव.
मुख्य सचिव, महाराष्ट्र राज्य, मंत्रालय, मुंबई.
प्रधान सचिव, नियोजन विभाग, मंत्रालय, मुंबई.
प्रधान सचिव, वित्त विभाग, मंत्रालय, मुंबई.
प्रधान सचिव (कृषी), कृषी व पदुम विभाग, मंत्रालय, मुंबई.
महासंचालक, माहिती व प्रसिध्दी, मंत्रालय, मुंबई.
प्रधान मुख्य वनसंरक्षक, (वनबल प्रमुख), महाराष्ट्र राज्य, नागपूर,
प्रधान मुख्य वनसंरक्षक (वन्यजीव), महाराष्ट्र राज्य, नागपूर,
अपर प्रधान मुख्य वनसंरक्षक (अर्थसंकल्प, नियोजन व विकास), महाराष्ट्र राज्य, नागपूर,
व्यवस्थापकीय संचालक, महाराष्ट्र राज्य वनविकास महामंडळ, नागपूर.
संचालक, सामाजिक वनीकरण संचालनालय, महाराष्ट्र राज्य, पुणे
मुख्य वनसंरक्षक (प्रादेशिक), सर्व
अपर प्रधान मुख्य वनसंरक्षक (वन्यजीव) नागपूर/मुंबई (बोरीवली)/नाशिक
मुख्य वनसंरक्षक (वन्यजीव), पुणे/कोल्हापूर/नाशिक
मुख्य वनसंरक्षक तथा क्षेत्र संचालक, मेळघाट व्याघ्र प्रकल्प, अमरावती
मुख्य वनसंरक्षक तथा संचालक, संजय गांधी राष्ट्रीय उद्यान, बोरिवली
मुख्य वनसंरक्षक तथा क्षेत्र संचालक, पेंच व्याघ्र प्रकल्प, नागपूर
मुख्य वनसंरक्षक तथा क्षेत्र संचालक, ताडोबा अंधारी व्याघ्र प्रकल्प, चंद्रपूर
मुख्य वनसंरक्षक तथा क्षेत्र संचालक, सहयाद्री व्याघ्र प्रकल्प, कोल्हापूर
सर्व पोलिस आयुक्त
सर्व जिल्हाधिकारी
उपवनसंरक्षक (प्रादेशिक) सर्व
उपवनसंरक्षक (वन्यजीव), ठाणे/गोंदिया/अकोला/आलापल्ली चंद्रपूर स्थित/औरंगाबाद
विभागीय वन अधिकारी, सांगली/उस्मानाबाद/बीड/भोर/चिपळूण/संगमनेर/मालेगाव/हिंगोली.
सर्व पोलिस अधीक्षक
सर्व जिल्हा कृषी अधिकारी
महालेखापाल-१/२ (लेखापरीक्षा/लेखा व अनुज्ञेयता), महाराष्ट्र राज्य, मुंबई / नागपूर
नियोजन विभाग, मंत्रालय, मुंबई - ३२.
वित्त विभाग (व्यय-१० कार्यासन), मंत्रालय, मुंबई - ३२.
कृषी, पशुसंवर्धन, दुग्धविकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई - ३२.
वन कक्षातील सर्व कार्यासने, महसूल व वन विभाग, मंत्रालय, मुंबई-३२
फ-१ कार्यासन, महसूल व वन विभाग, मंत्रालय, मुंबई - ३२ (निवडनस्ती).

APPENDIX - XI

F.No. PS(DIR) - PT 2003

Dated: 9th April. 2003

To,
Field Director
(All Tiger Reserves)

Subject: Regulation of Tourist Visitation in Tiger Reserves

Sir,

As you are aware, there is considerable tourist influx (both inland and foreign) in many of our Protected Areas and Tiger Reserves, which necessitate regulation of such visitation in the interest of minimizing the biotic disturbance to wild animals and their habitat. It must be borne in mind, ecotourism should be fostered in the right perspective in these areas, so that there is no compromise or trade-off in wildlife interests, since our Tiger Reserves are ecotypical repositories of valuable gene pool. Hence, the following may be ensured in this regard:

- ◆ The tourist visitation should be regulated as per the carrying capacity of the area
- ◆ In place of open gypsies and smaller vehicles, medium sized buses, with a closed body and sliding windows, may be used for Park excursions. This will minimize the risk of close encounters with wild animals, apart from reducing the number of vehicles inside the Park at any point in time.
- ◆ A minimum mandatory distance of at least 500 meters should be maintained between two vehicles plying on the same road.
- ◆ A minimum mandatory distance of 30 meters should be maintained by tourist vehicles while spotting a tiger or any other wild animal.
- ◆ The route guides should be more professionally trained and penalty should be imposed on visitors in case they violate Park rules

Further, a model calculation of the Tourist Carrying Capacity is also appended for ready reference, which is fairly robust and can be computed in a site-specific manner by collecting some basic field data. It is requested, this computation may please be done for your Reserve and this Ministry may be apprised accordingly. Since a certain amount of risk is always involved in jungle excursions despite all precautions, a standardized 'indemnity Bond' may also be prescribed indemnifying the Park authorities from litigation / arbitration which may arise on account of accidents suffered by tourists during Park round. All due formalities in this regard may be completed before the tourists are allowed entry into the Tiger Reserve. Under no circumstances tourist excursions should be allowed during the night. It goes without saying, apart from causing immense disturbance to wild animal, such ventures are extremely risky. It is also reiterated, no tourist facilities should be created in the 'Core Zone' of a Tiger Reserve.

Yours Sincerely,
Dr Rajesh Gopal
(IGF & DIRECTOR, PT)

Copy to :- All Chief Wildlife Wardens

APPENDIX - XII

CARRYING CAPACITY OF PENCH TIGER RESERVE, MAHARASHTRA

- **Physical Carrying Capacity (PCC)** “Maximum No. of visitors that can fit in to defined space”.

$$PCC = A \times V/a \times RF$$

$$A = \text{Available area for Public use (136 Km.)}$$

$$V/a = 1 \text{ Visitor per M}^2 \text{ (2 Vehicles per Km.)}$$

$$RF = \text{Rotation Factor}$$

(Opening period / Average Time of one visit)

$$(7 / 3.5 = 2)$$

$$PCC = 136 \times 2 \times 2$$

$$= 544 \text{ visits per day.}$$

- **Real Carrying Capacity (RCC)** “Maximum permissible no. of visits to a site, once the reductive factor (corrective) derived and applied to the PCC.

$$RCC = PCC - Cf$$

$$Cf = \text{Corrective Factor (Cf = MI / Mt x 100)}$$

MI = Limiting Magnitude

Mt = Total Magnitude

$$Cf_t \text{ for Tiger} = 2/9 \times 100 = 22.22 \%$$

$$Cf_c \text{ for Chital} = 2/9 \times 100 = 22.22 \%$$

Overall corrective factor for disturbance in Pench National Park.

$$Cf_w = Cft + Cfc$$

$$= 22.22 + 22.22$$

$$= 44.44 \%$$

- **Road Erosion Cf₂**

$$\text{Total Road Length (M2)} = 136.00 \text{ Km. (Mt)}$$

$$\text{Medium erosion sink} = 9.00 \text{ Km.}$$

$$\text{High Erosion Risk} = 3.00 \text{ Km.}$$

$$M_1 = 7.00 \times 2 + 02.00 \times 3$$

$$= 14 + 6$$

$$= 20$$

$$Cf_E = 20 / 136 \times 100$$

$$= 14.7 \%$$

•

• **Temporary Closing of Roads Cf₃**

$$Cf_3 = \frac{\text{Limiting Week 1/Year}}{36 \text{ weeks / year}} \times 100$$

$$= \frac{1}{52} \times 100$$

$$= \frac{36}{52}$$

$$= 0.69$$

$$= 0.02 \times 100$$

$$= 2.78$$

- **Real Carrying Capacity (RCC)** “Maximum permissible no. of visits to a site, once the reductive factor (corrective) derived and applied to the PCC.

$$RCC = PCC \times \frac{(100 - CFE)}{100} \times \frac{(100 - CFW)}{100} \times \frac{(100 - CF3)}{100}$$

$$= 544 \times \frac{100 - 44.44}{100} \times \frac{100 - 14.7}{100} \times \frac{100 - 2.78}{100}$$

$$= 544 \times 0.5556 \times 0.853 \times 0.9722$$

$$= 250$$

Management capacity for Pench Tiger Reserve 40%

$$\begin{aligned} \text{ECC} &= \text{Visits per day} \times \text{MC} \\ &= 250 \times 40 \% \\ &= 100 \end{aligned}$$

- Sillari - Morning – 35 Vehicles
- Afternoon – 45 Vehicles
- Kolutmara Morning – 07 Vehicles
- Afternoon – 13 Vehicles
- **Total** **100 Vehicles**

INCREMENTAL CAPACITY IN PEAK SEASON - **10%** = **10 Vehicles**

Total - **110 Vehicles**

Hence 110 light vehicle carrying maximum 6 persons = 660 persons

Keeping in mind Monday closure for maintenance the monthly carrying capacity is maximum of **572** Light vehicle or **3432** persons (say 3450 persons). One Mini Bus (25 seater) can be treated as equivalent of four light vehicle.

Hence yearly maximum tourist number which the park can sustain is around **31000**.

APPENDIX NO. XIV

ESTIMATION DATA SINCE 1995 TO 2014

S. N.	Name of the species	1995	1996	1997	1998	1999	2002	2003	2004	2005	2006	2007	2008 to 2011	2012	2013	2014
1	Tiger	12	5	7	8	3	16	27	23	24	24	19	Waterhole Count was not carried out	10	11	8
2	panther	10	12	9	7	3	11	22	15	19	16	14		08	4	3
3	Gaur	--	269	214	227	248	306	310	283	444	303	640		331	258	137
4	Sambar	--	675	796	823	755	1073	966	1135	926	753	1659		533	367	267
5	Chittal	--	1243	1703	1274	1667	2219	2032	2793	2285	1637	4277		1324	1257	1060
6	Barking deer	--	205	208	284	269	186	143	231	166	163	165		36	23	21
7	Blue bull	--	90	216	185	183	267	219	313	267	271	640		106	70	65
8	Macaque (Red faced)	--	--	--	--	--	265	3	280	26	38	661		211	34	39
9	Hanuman languor	--	576	499	438	824	221	1421	1523	1092	1520	2484		830	1155	763
10	Wild boar	--	490	496	608	740	786	914	996	794	906	1221		796	324	311
11	Bear	--	6	23	17	16	14	20	17	18	23	26		19	28	8
12	Wild dogs	--	56	7	72	62	123	209	341	220	296	334		81	71	58
13	Civet cat	--	1	1	5	5	--	--	19	11	7	5		15	00	0
14	Jangle Fowl	--	--	--	--	--	656	--	984	209	986	1659		00	00	00
15	Fox	--	--	--	--	--	107	--	199	79	105	187		62	50	44
16	Four Horned Antilope	--	--	--	--	--	--	18	8	4	--	6		5	00	00
17	parcupine	--	--	--	--	--	--	16	89	42	22	31		16	13	8
18	Hare	--	--	--	--	--	8	31	70	2	--	26		00	3	7
19	Serpent Eagle	--	--	--	--	--	--	--	59	2	--	--		00	0	0
20	Mongoose	--	--	--	--	--	31	54	106	4	6	--		6	11	13
21	Jangle cat	--	--	--	--	--	1	4	41	29	13	47		10	6	2
22	Vulture	--	--	--	--	--	--	--	--	20	21	4		35	00	9
23	Hyena	--	--	--	--	--	--	--	2	1	7	--		0	00	0
24	Pengoline	--	--	--	--	--	--	--	--	--	5	--		1	1	0
25	Eagle	--	--	--	--	--	--	--	15	--	--	--		0	00	0
26	Owl	--	--	--	--	--	1	--	--	--	--	--		0	00	0
27	Jungle Cock	--	--	--	--	--	63	258	251	42	--	--		0	00	0

Note :- In the year 1995, due to the heavy rainfall during estimation period, waterhole count was not carried out.

APPENDIX NO. XV

STATEMENT SHOWING YEARWISE DIGGING OF TCM

Range	Year	Comptt.No.	Length (RMT)	Remarks
East Pench	1992-93	561, 562, 564, 656,566, 567, 568	2484 5154	Digging of New TCM
	1993-94	562, 517, 518	600 3150	Digging of New TCM Repairs to old TCM
	1994-95	566, 567	931	
	1995-96	567	34	Repairs to old TCM
West Pench	1991-92	661	3750	Digging of New TCM
		662	1250	
		664	2000	
665		2500		
666		2500		
1992-93	677, 678, 680 685, 689	5159	Digging of New TCM	
1993-94	675, 676, 677, PF227 661, 662, 664, 665, 666 676, 678, 685, 689	8230.40 8198.40 3000	Digging of New TCM Repairs to old TCM Repairs to old TCM	

APPENDIX NO. XVI

**STATEMENT SHOWING DETAILS OF FOREST LAND (RF)
USED BY IRRIGATION DEPARTMENT**

A. FORESTLAND (RF) COMPARTMENTS USED FOR ROADS

S.N.	Name of Block	Comptt. No.	Area (Ha.)
1.	Sillari - Khapa Block	587	1.70
		587	1.66
		586	2.51
		586	2.54
		585	1.84
		568	1.62
		569	0.93
		569	0.93
		561	4.55
		571	0.66
		571	0.81
		570	1.01
		542	1.21
		542	3.08
		542	0.32
		540	3.06
		540	1.21
		536	1.34
		536	1.21
		236	1.01
536	0.23		
537	1.21		
537	2.25		
537	4.25		
		Total	41.14

**B. FOREST LAND (RF) COMPARTMENTS USED FOR APPROACH ROADS AT HATTIGOTA
AUDIT NO. II GAWALIGHAT, OUTFALL AND SADAL DAM NO. 7**

S.N.	Name of Block	Comptt. No.	Area (Ha)
1.	Sillari Khapa Block	542	3.360
		541	2.208
		543	6.432
			12.00
		542	3.024
		544	2.136
		545	7.032
		548	5.280
		570	2.928
			20.400
		530	4.200
		528	1.440
		529	3.960
		515	2.040
		516	4.800
		517	4.680
			21.12
		Total	53.520

**C. FOREST LAND (RF) COMPARTMENTS USED FOR SADDLE DAM NO. 7 TAILRACE
TUNNEL , OUTFALL, AUDIT NO. II ETC.**

S.N.	Name of Block	Comptt. No.	Area (Ha.)
1.	Sillari Khapa Block	517 548 538 539 541 548 548	19.20
		Total	19.20

D. FOREST LAND (RF) COMPARTMENT USED FOR DAM SITE, QUARRIES AND BORROW AREA

S.N	Name of Block	Comptt. No.	Area (Ha.)
1.	Sillari Khapa Block	527 528 528 530	43.30 29.92 29.32 17.60
		Total	120.14

E. FOREST LAND (RF) COMPARTMENT USED FOR COLONIES, STORES AND POWER HOUSE, QUARRIES, DUMPING SITE ETC.

S.N.	Name of Block	Comptt. No.	Area (Ha.)
1.	Sillari Khapa Block	530 537 537 537 538	64.77 74.00 81.00 79.67 89.50
		Total	388.94

F. FOREST LAND (RF) COMPARTMENTS UNDER SUBMERGENCE OF PENCH NATIONAL PARK HYDEL DAM RESERVOIR.

S.N.	Name of Block	Comptt.No.	Area (Ha.)
1.	Sillari Khapa Block	515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530	5.54 72.02 6.67 35.10 46.17 168.65 0.10 237.44 190.26 282.06 188.17 140.32 234.50 185.74 86.49 108.64
		Total	1993.78

**APPENDIX NO. XVII
STATEMENT OF EXISTING ROADS AND CULVERTS.**

S.N.	Name of Road	Length (km.)	Year of upgradation	Remarks
	East Pench Range			
A	Murum Roads			
1.	Sillari - Ranidoh	14	2000-2001 2001-2002	Fair Weather Road
2.	Fulzari-Tippat-Kirangisarra	10	2001-2002 2002-2003	Fair Weather Road
3.	Fulzari Tippat-Hattigota	7	2003-2014	Fair Weather Road
4.	Fulzari Tippat-Ghoti	1		
5.	Ranidoh-Gawalighat	4		
6.	Hattigota-Tippat-Fefdikund	6	2004-2005	Fair Weather Road
7.	Hattigota-Lamandoh	6		
8.	Salama-Bakhari	6	2005-2006	Fair Weather Road
9.	Salama-Bodalzira	10	2006-2007	Fair Weather Road
10.	Bakhari-Khapa	3	2007-2008	Fair Weather Road
11.	Sadal Dam-Chikhalkhari	8		
12.	Sadal Dam - Bakhari	8	2008-2009	Fair Weather Road
13.	Bodalkhapa-Lamandoh	4	2009-2010	Fair Weather Road
14.	Totladoh Forest Rest House	1		
15.	Salama to Pivarthadi	5		
16.	Bhivsen Kuti to Bakhari Kuti	9	2010-2011	
17.	Sadaldam to Nagdev Pahadi	3		
18.	Garadi Ban Tippat to Chikhalkhori Road	6		
19.	Gawalighat To Kirangisarra	8	2010-2011	
20.	Sillari to Kirangisarra	13		
21.	Ghoti gate to Ranidoh	9		
22.	Hattigota to Sadisurra Raod	5	2011-2012	
23.	Fulzari Tippat to Gawali Ghat Road	6		
24.	Hattigota Tippat to Tirtal Mangi Road	3		
25.	Mataal Tek Tippat to Bodal Khapda	4	2012-2013	
26.	Kirangisarra to Bandapar road	4		
27.	Sillari to Gajam Khind Road	4		
28.	Bodalzira road tippat to Saddaldam	11		
	Total	178		
B	Cart track			
1.	Lamandoh Ambakhori	3	2000-2001	Fair Weather Road
2.	Paulzodi Anicut	1		
3.	Parvidoh Anicut	5	2001-2002	Fair Weather Road
4.	Fefdikund Khapa	5	2002-2003	Fair Weather Road
5.	Sadam Dam Submergence	3	2003-2004	Fair Weather Road
6.	Chilkhalkhari Khursapar	5	2004-2005	Fair Weather Road
	Total	22		
	West Pench Range			
A	Metalled Road			
1.	Narhar - Ghatpendhari	18	2000-2001 (6 Km) 2001-2002 (6 Km) 2002-2003 (6 Km)	Partly All Season Raod
B	Murum Road			
1.	Narhar-Kolitmara	5	2000-2001	Fair Weather Road
2.	Dadhyayen-Lamandoh	7	2007-2008	Fair Weather Road
3.	Ghatpendhari-Tippat-Lamandoh (Sattalao)	35	2006-2007	Fair Weather Road
4.	Kolitmara-Zilmil WatchTower	7	2000-2001	Fair Weather Road

5.	Sahagondi-Datizira	9	2000-2001(5 Km.)	Fair Weather Road
6.	Ghatpendhari-Tippat-Rahinutar	3	2001-2002 (4 Km)	Fair Weather Road
7.	Tumbadi to Kolutmara	10	2009-2010	
8.	Surewani Khindi to Tumbaditek Road	8		
9.	Parsapani tippat to Jamundoh Chipad Road	8		
10.	Nanpur Tippat to Tubadi Tek road	7	2010-2011	
11.	Nali Tippat to Lamndoh Raod	10		
12.	Rohani Uttar to Amti Road	7		
13.	Bijabodi to Kottopani Road	5	2011-2012	
14.	Mahurzodi to Lakhani Nalla Raod	5		
15.	Dawalapur to Ghatkukada Raod	6		
16.	Datezira to Sahigondi Road	5	2012-13	
17.	Amti Ghotimata to Buddafata road	7		
	Total	144		
C	Cart Road			
1.	Ghatpendhari-Amti-Tippat	5	2000-2001	Fair Weather Road
2.	Dongardeo Waterhole	1		
3.	Rahdeo Waterhole	6	2001-2002	Fair Weather Road
4.	Chipadnala Waterhole	5	2002-2003	Fair Weather Road
5.	Tippat - Sanjpani - Gharad	5		
6.	Sitanahani Waterhole	5		
7.	Totladoh State Boundary	2	2003-2004	Fair Weather Road
8.	Bandra Waterhole	6	2004-2005	Fair Weather Road
9.	Fukkidoh Waterhole	1		
	Total	36		
II	ROAD WITH IRRIGATION DEPTT			
	East Pench Range			
	Tar Road			
1.	Paoni Totladoh	19.50		All Season Road
2.	Totladoh – Ambakhori	2.50		
	Total	22		
	Metal Road			
1.	Old Bodalzira Tippat Sadaldam No. 7	10	2001-2002	Partly All Season Road
2.	Hattigota Gate Audit II (Outfall)	5.50	2002-2003	Partly All Season Road
3.	Gavlightat outfall (Hattigota Gavlightat)	8.50		
	Total	24		

Note :

1. The Roads will be upgradated from Kachcha to Murum/Metal & from Murum to Metal considering management requirement. The objective should be to have better communication network in whole area so that effective patrolling can be done to check illegal activities.
2. Roads with the Irrigation Department will be maintained, if necessary by the Park Management.
3. The culverts on any road will be taken on priority followed by roads. If sufficient budgetary provision is available, then both culverts & road length work will be taken up, simultaeously.

APPENDIX NO. XVIII

LIST OF WIRELESS STATIONS

Range	S.N.	Wireless Station	Height of the Tower (ft.)	Aerial distance (km. from Totladoh)	Remarks
East Pench	1	Totladoh	90	55 (from Nagpur)	Two frequencies (77.05 MHz & 77.30 MHz transmetre power 25 Watt) Mains/Battery
	2	Pipariya	90	11.2	-----do-----
	3	Sillari	50	9.6	Single Channel Unit 77.04 MHz at 15 watt TP
	4	Salama	50	5.6	-----do-----
	5	Bodlazira		12.8	-----do-----
	6	Piwarthadi		15.0	
	7	Saddledam		10.8	
West Pench	8	Ghatpendhari	90	8	Two frequencies unit transmetre power 25 watt (Mains/Battery)
	9	Narhar	80	16	Single Channel Unit 77.05 MHz at 15 watt TP
Outside Pench Tiger Reserve	10	Nagpur	80	55	Two frequencies (77.05 MHz & 77.30 MHz transmetre power 25 Watt) Mains/Battery
	11	Pauni	50	18	Single Channel Unit 77.05 MHz at 15 watt TP
	12	Ranidoh	50	6.4	-----do-----
	14	Kolitmara	90	12.8	Two Channel Unit –TP 25 watt Mains/Battery handheld used

APPENDIX NO. XIX

THE MONTHWISE RAINFALL

Month	Year (Rainfall in mm.)														
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
January	--	--	18.80	37.6	2.6	23.3	31.1	-	Data			-	13.3	75.7	-
February	--	3.80	32.90	9.20	11.2	-	21.4	19.9	Not Available			1.3	-	60 m	-
March	--	40.00	--	62.80	10.1	--	32.1	--				3.2	-	-	75.4
April	8.30	1.80	11.70	12.00	23.2	13.3	8.5	--				4.3	4.2	11.4	33.6
May	25.80	32.00	0.50	7.20	--	18.3	8.0	29.3				-	1.6	-	139.6
June	137.80	159.19	152.20	139.10	38.3	100.8	106.2	174.6				50.8	134.2	295.8	168.2
July	288.30	462.80	438.90	301.90	277.3	264.3	187.4	235.9				487.7	257.4	334.8	182.0
August	485.70	293.10	291.10	73.40	207.4	251.2	259.5	304.5				174.3	227.2	295.8	388.2
September	112.10	216.50	267.60	175.00	153.5	144.4	252.4	255.3				82.8	132.2	316.5	148.2
October	6.00	42.30	70.20	3.80	92.5	132.5	48.00	97.9				-	1.4	177.2	0.6
November	--	--	--	--	7.6	82.2	81.6	--				1.2	-	-	-
December	--	--	--	2.00	--	108.6	--	--				-	-	-	-
Total	1064.00	1251.49	1283.90	824.00	823.7	1141.9	1036.2	1117.4				805.6	771.5	1507.2	1135.8

THE MONTHWISE RAINFALL

Month	Year (Rainfall in mm.)														
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
January		-	-	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
March	-	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-
April	15.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
May	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
June	14.8	192.3	53.8	-	-	-	-	-	-	-	-	-	-	-	-
July	354.3	243.1	383.0	-	-	-	-	-	-	-	-	-	-	-	-
August	371.6	268.6	310.9	-	-	-	-	-	-	-	-	-	-	-	-
September	275.9	98.9	100.0	-	-	-	-	-	-	-	-	-	-	-	-
October	274.6	5.04	95.0	-	-	-	-	-	-	-	-	-	-	-	-
November	63.2	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-
December	27.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1398.4	834.94	942.7												

APPENDIX NO. XX

THE LIST OF WATERHOLES INCLUDING NALAS

Range	S.N.	Name of Waterholes/Nala inside the Pench Tiger Reserve	Type	Comptt. No.	Remarks
East Pench	1	Vadapani/Koyalasur Nala	Natural	513	Seasonal
	2	Kutumba Nala	Natural	511	Seasonal
	3	Chitalmandava Nala	Natural	514	Seasonal
	4	Bhivsen Nala	Natural	515	Seasonal
	5	Chikhalkhari Nala	Natural	517	Seasonal
	6	Karuzodi Nala	Natural	518	Seasonal
	7	Kutumba Nala	Natural	515	Seasonal
	8	Pitezari Nala	Natural	528	Seasonal
	9	Hiwardeo Nala	Natural	526	Seasonal
	10	paulzodi Nala	Natural	529	Seasonal
	11	Kusumzodi Nala	Natural	530	Seasonal
	12	Ranikamat Nala	Natural	531	Seasonal
	13	Yenzodi Nala	Natural	532	Seasonal
	14	Mungazodi Nala	Natural	534	Perennial
	15	Fefdikund Nala	Natural	573	Perennial
	16	Bhumakdeo Nala	Natural	535	Perennial
	17	Ambakhori Nala	Natural	536	Perennial
	18	Alidoh	Natural	536	Perennial
	19	Golaikhai Nala	Natural	540	Perennial
	20	Rekerghat Nala	Natural	511	Seasonal
	21	Kantrautar Nala	Natural	544	Perennial
	22	Nilparcha	Natural	572	Perennial
	23	Ghogra Nala	Natural	569	Perennial
	24	Hattigota Nala	Natural	542	Perennial
	25	Sadisurra Nala	Natural	543	Perennial
	26	Ghograutar Nala	Natural	569	Perennial
	27	Masalmatta Spring	Natural	572	Perennial
	28	Bodalkhapda Doh	Natural	540	Perennial
	29	pandhari Hudki Nala	Natural	572	Seasonal
	30	Pench River	Natural	--	Perennial
	31	Totladoh Reservior	Natural	--	Perennial
	32	Old Bodalzira Road	Artificial	529/530	Cement Tank
	33	Ghoti	Artificial	564	Cement Tank
	34	Kirangisarra	Artificial	552	Cement Tank
	35	Meadow Plot	Artificial	517	Dug out pond
	36	Fefdikund Area	Artificial	573	Dug out pond

Range	S.N.	Name of Waterholes/Nala inside the Pench Tiger Reserve	Type	Comptt. No.	Remarks
West Pench	37	Sitanahani Spring	Natural	676	Perennial
	38	Fukkidoh Nala	Natural	677	Perennial
	39	Jamun Mod Nala	Natural	676	Seasonal
	40	Datanjan Nala	Natural	673	Perennial
	41	Dongerdeo Spring	Natural	684	Perennial
	42	Datizira Nala	Natural	672	Seasonal
	43	Saigondi Nala	Natural	671	Perennial
	44	Chaptagota Nala	Natural	680	Perennial
	45	Bandra Nala	Natural	689	Perennial
	46	Chipad Nala	Natural	683	Perennial
	47	Dhondopani Nala	Natural	688	Seasonal
	48	Khekdinala	Natural	687	Seasonal
	49	Kundam Nala	Natural	674	Seasonal
	50	Ghoradgondi	Natural	674	Perennial
	51	Shivandoh Nala	Natural	673	Perennial
	52	Karudoh Nala	Natural	688	Perennial
	53	Amti Gadda Nala	Natural	693	Perennial
	54	Kottopani Nala	Natural	690	Perennial
	55	Piprapani Nala	Natural	673	Perennial
	56	Hattigota Nala	Natural	674	Seasonal
	57	Godni Phata Nala	Natural	673	Seasonal
	58	Ghoradgondi	Natural	674	Seasonal
	59	Kinnozodi Nala	Natural	671	Seasonal
	60	Bandra Nala	Natural	684	Perennial
	61	Junapani	Natural	676	Perennial
	62	Deurgondi Nala	Natural	672	Perennial
	63	Chitalzodi Nala	Natural	674	Seasonal
	64	Jamunzodi Nala	Natural	674	Seasonal
	65	Ghotialzodi Nala	Natural	674	Seasonal
	66	Tumdizodi Nala	Natural	674	Seasonal
	67	Markadoh Nala	Natural	676	Seasonal
	68	Sitadoh Nala	Natural	676	Seasonal
	69	Chichban Nala	Natural	684	Seasonal
	70	Jamunzira Nala	Natural	671	Seasonal
	71	Junapani Nala		674	Seasonal
	72	Uchahudki Nala		678	Seasonal
	73	Kachkhuria Nala		685	Seasonal
	74	Pulimando Nala		687	Perennial
	75	Bangadoh		670	Perennial

	76	Sawrimod		670	Perennial
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Range	S.N.	Name of Waterholes/Nala inside the Pench Tiger Reserve	Type	Comptt. No.	Remarks
	77	Jamunzira Nala	Natural	681	Seasonal
	78	Chitalhudki Nala	Natural	--	Seasonal
	79	Dahi Nala	Natural	694	Seasonal
	80	Behda Khori Nala	Natural	691	Seasonal
	81	Gavlidoh Nala	Natural	690	Perennial
	82	Gosaigodda Nala	Natural	690	Perennial
	83	Sisaizira Nala	Natural	690	Perennial
	84	Ghogra Nala	Natural	227PF	Perennial
	85	Fukkidoh	Natural	677	Perennial
	86	Markadari	Natural	227	Perennial
	87	Anjanpani Nala	Natural	693	Perennial
	88	Rohdeo Nala Spring	Natural	661	Seasonal
	89	Dadhayayen Nala	Natural	682	Perennial
	90	Lakhani Nala	Natural	689	Perennial
	91	parchapani	Natural	667	Perennial
	92	Dudhakhori	Natural	697	Seasonal
	93	Daiturgondi	Natural	672	Seasonal
	94	Jamunmod	Natural	676	Seasonal
	95	Karudoh	Artificial	688	Seasonal
	96	Usmad Nala	Artificial	683	Seasonal

	97	Dhobi Nala		667	Seasonal
	98	Shivandoh		673	Dug Out Pond
	99	Chinchban Nala		680	Dug Out Pond
	100	Dongredeo Nala		684	

Note : Some of the Waterholes are the stagnant pools of water created in Nala, river bed etc.

OUTSIDE THE Pench Tiger Reserve

Range	S.N.	Name of Waterholes/Nala inside the Pench Tiger Reserve	Comptt. No.	Remarks
East Pench	1	Sillari Talao	Artificial	Perennial
	2	Pipariya Talao	Artificial	Perennial
	3	Wagholi Talao	Artificial	Perennial
	4	Bakhari Talo	Artificial	Perennial
	5	Ghogra Nala/Shivkund	Natural	Perennial
	6	Ghoti Bandhara	Artificial	Seasonal
	7	Zinzariya Talao	Artificial	Perennial
	8	Kodu Talao	Artificial	Seasonal
West Pench	9	Dhawalpur Talao	Artificial	Perennial
	10	Galdeo Nala	Natural	Perennial
	11	Jatalzodi Nala	Natural	Perennial
	12	Chinchorapani Nala	Natural	Perennial
	13	Kutarzodi Nala	Natural	Perennial
	14	Banera Nala	Artificial	Seasonal
	15	Narhar Talao	Artificial	Seasonal

APPENDIX NO. XXI**LIST OF ANICUTS**

Range	S.N.	Place	Comptt.No.	Remarks
East Pench	1	Salama	531 533	Subterranean leakage, water remains still manson continues
	2	Hattigota	542	Underground Leakage, retains water up to December-January
	3	paulzodi	544	Underground Leakage, retains water up to February-March
	4	parvidoh	549	Underground Leakage, retains water up to till Manson continues
	5	Mungazodi (Bakhari)	534	Underground Leakage, retains water up to January - February
	6	Kantrautar Nala	545	Underground Leakage, retains water up to February-March
West Pench	7	Dongredeo Nala	684	Underground Leakage, retains water up to February-March
Diyke in East Pench	8	Sadaldam	517	

APPENDIX NO. XXII

LIST OF BOREWELLS

Range	S.N.	Place	Year	Depth in mtr.	Yield (LPH)	Expenditure (Rs.)
East Pench	1	Pipariya	1989-90 to 1991-92	61	870	20136
	2	Pipariya	Old	NA	NA	NA
	3	Salama	9/90	56	15950	16912
	4	Sillari	9/90	46	7770	15612
	5	Ghoti Comptt.	564 12/90	61	4930	16272
	6	Khapa	12/90	24	4930	18236
	7	Khursapar	12/90	61	1375	20136
	8	Kirangisarra Comptt. 552	1/91	61	500	20136
	9	Hattigothat comptt 542 Bakhari	3/1997	65	NA	NA
	10	Comptt 574 Amaltas	3/1997	60	6660	27177
	West Pench	11		2013-14	65	NA
12		Chichban (Datizira)	1/91	62	500	20832
13		Khekdinala				
14		Amjanpani	1/91	80	500	23135
15		Narhar - I (Abandoned)	12/90	44	500	16343
		Narhar – II Chatan	1/91	18	NA	3111
16		Narhar – III	1/91	62	1375	20391
17		Kolitmara	4/91	57.90	500	13641
18		1/91	74	500	21625	
West Pench	19	Chipad	2004	65	NA	22225
	20	Biddhafata		70	NA	22350
	20	Chatanfata		76	NA	22500
	21	Wadwale Nalla	2005	65	NA	23250
	22	Jamun Mode		72	NA	23100
	23	Bodaki Matta		75	NA	24000
	24	Dadyayen	2006	64	NA	25000
	25	Hattigotta		70	NA	25100
	26	Lendya Khars	2008	75	NA	24800
	27	Karudoh		69	NA	23000
	28	Tinmunnara	2009	70	NA	NA
	29	Hattigotta Road		75	NA	NA
	30	Tumditek	2010	66	NA	25000
	31	S. Ghatpendhari Check Post		76	NA	25300
	32	Rest House Ghatpendhari		75	NA	26000
	33	Chandal pahadi Check Post		80	NA	26700

Note: Diameter of all Bore wells are 6". Bore wells are used to provide water to artificial water hole in summer

APPENDIX NO. XXIII**LIST OF SALT LICKS**

Range	S.No.	Place	Comptt. No.
East Pench	1	Kantrautar Nala	544
	2	Hattigota	542
	3	Bakhari Road	572
	4	Ghoddeo Nala	535
	5	Fefdikund	532
	6	Sadaldam Road	529
	7	Meadow Plot	517
	8	Salama	530
	9	Salama-Ambakhori Road	536
	10	Nagdeo pahadi	517
	11	Fire line	516
	12	Bhiwsen Nala	515
	13	Ranikamat	531
	14	Ghumakdeo	535
West Pench	15	Narhar-Kolitmara Road	664
	16	Anjanpani	662
	17	Surewani Khind	684
	18	Khekdinala	688
	19	Bandra Nala	689
	20	Ghatpendhari	680
	21	Chichban	684

APPENDIX NO. XXIV

LIST OF MAMMALS OF PENCH NATIONAL PARK

DIVISION : VERTEBRATA

CLASS : MAMMALIA

S.N.	Scientific Name	Common English Name
1	ORDER : INSECTIVORA FAMILY : PTERODIDAE <i>Suncis murinus</i>	House Shrew or Grey Musk Shrew
2	ORDER : CHIROPTERA FAMILY : PTERODIDAE <i>Rousettus leschenaultia</i>	Fulvous Fruit Bat
3	<i>Pteropus giganteus</i>	Indian Flying Fox
4	<i>Kerivoula picta</i>	Painted Bat
5	ORDER : PRIMATES FAMILY : CERCOPITHECIDAE <i>Macaca mulata</i>	Rhesus macaque
6	<i>Presbytis entellus</i>	Common Langur
7	ORDER : CARNIVORA FAMILY : MUSTELIDAE <i>Melivora capensis</i>	Ratel
8	<i>Canis aureus</i>	Jackal
9	<i>Canis alpinus</i>	Wild dog or Dhole
10	<i>Melursus ursinus</i>	Sloth bear
11	FAMILY : VIVERRIDAE <i>Viverricula indica</i>	Small Indian Civet
12	<i>Paradoxurus</i>	Toddy Cat or Small Indian Civet.
13	<i>Hermaphroditus</i> <i>Herpestes edwardsi</i>	Indian Grey Mongoose
14	FAMILY : HYAENIDAE <i>Hyaena hyaena</i>	Striped Hyaena
15	FAMILY : FELIDAE <i>Panthera Tigris</i>	Tiger
16	<i>Panthera pardus</i>	Leopard, panther
17	<i>Felis chaus</i>	Jungle Cat
	ORDER : ARTIODACTYLA FAMILY : SUIDAE	

18	<i>Sus scrofa</i> FAMILY : TRANGULIDAE	Wild Boar
19	<i>Tragulus meminna</i> FAMILY : CERVIDAE	Mouse Deer or Indian Spotted Chevrotain
20	<i>Axis axis</i>	Spotted Deer
21	<i>Cervus unicolor</i>	Sambar
22	<i>Mantiacus muntjak</i> FAMILY : BOVIDAE	Barking Deer or Muntjac
23	<i>Bas gaurus</i>	Indian bison or Gaur
24	<i>Boselaphus tragocamelus</i>	Nilgai
25	<i>Tetraceros quadricornis</i> ORDER : LAGOMORPHA FAMILY : LEOPORIDAE	Fourhorned Antelope or Chausinga.
26	<i>Lepus nigricollis</i> ORDER : RODENTIA FAMILY : SCIURIDAE	Indian black Naped Hare.
27	<i>Ratufa indica</i>	Large Brown Flying Squirrel
28	<i>Funambulus palmarun</i>	Three Striped palm Squirrel
29	<i>Funambulus pennanti</i>	Five Striped palm Squirrel
30	<i>Hystrix indica</i>	Indian Crested Porcupine
31	<i>Rattus rattus</i>	House Rat
32	<i>Bandicota bengalensis</i> ORDER : PHOLIDOTA FAMILY : MANIS	Indian Mounse Rat or Lesser Bandicoot.
33	<i>Manis crassicaudata</i>	Pangolin or Scaly Ant-eater.

APPENDIX NO. XXV

LIST OF BIRDS OF PENCH NATIONAL PARK

Common Name	Scientific Name	Movement	Abundance	Marathi Name
1. Little Grebe or Dabchick	<i>Podiceps ruficollis</i>	R	C	Pandubi
PHALACRO CORACDAE Cormorants				
2. Cormorant	<i>Ohalacrocorax carbo</i>	R	C	Motha pankavala
3. Little Cormorant	<i>Phalacrocorax niger</i>	R	C	Chota pankavala
4. Darter or Snake bird	<i>Anhinga rufa</i>	R	C	Tirandaj
ARDEIDAE : Herons, Egrets, Bitterns				
5. Grey Heron	<i>Ardea cinerea</i>	R	C	Rakhi Bagata
6. Purple Horon	<i>Ardea purpurea</i>	LM	C	Jambhata Bagat
7. Pond Heron or paddy Bird	<i>Ardeola grayil</i>	R	C	Bhura Begata
8. Cattle Egret	<i>Bubulcus ibis</i>	R	C	Gai Bagala
9. Large Egret	<i>Ardea abia</i>	LM	O	
10. Intermediate Egret	<i>Egretta intermedia</i>	R	C	Pisari Bagala
CICINIDAE : Storks				
11. Openbill Stork	<i>Amastomus oscitan</i>	LM	C	Mugdha Balak
12. White necked stork	<i>Ciconia episcopus</i>	R	C	Shubra Mani Karkocha
THRESKIORNITHIDAE: Ibises, Spoonbills				
13. White ibis	<i>Threskiornis</i>	R	C	Pandra Awak
14. Black Ibis	<i>Gethiopica</i>			Kala Awak
15. Spoonbill	<i>Pseudibis papillosa</i>	R	C	Chamchya
	<i>Platelea, leucorodia</i>	LM	O	
ANATIDAE : Ducks, Geese				
16. Lesser Whisting Teal	<i>Dendrocygna javanica</i>	R	C	Chota Marai Chakravak
17. Brahminy Duck	<i>Tadorna ferruginea</i>	M	C	Araruchi
18. Pantail	<i>Anas acuta</i>	M	C	Maral
19. Common Teal	<i>Anas crecca</i>	M	C	Sarji
20. Spotbilled Duck	<i>Anas poecilorthyncha</i>	LM	O	Tarang
21. Wigeon	<i>Anas penelope</i>	M	C	

Common Name	Scientific Name	Movement	Abundance	Marathi Name
22. Garganey Bidewinged Teal	<i>Anas querquedula</i>	M	C	Bhuvai
23. Shoveller	<i>Anas clypeata</i>	M	O	Thaptya
ACCIPITRIDAE : Hawks, Bultures, Eagles				
24. Blackwinged Kite	<i>Elanus caeruleus</i>	R	C	Katshi
25. Pariah Kite	<i>Milvus migrans govinda</i>	R	C	Nagri Ghar
26. Vrahminy Kite	<i>Haliasture indus</i>	LM	U	Brahmin Ghar
27. Spaarrow Hawk	<i>Accipiter nisus</i> <i>Nisosimilis</i>	R	C	Shyen
28. Crested Gawj-Eagle	<i>Spizhaetus cirrhatus</i>	R	C	Turewala Gardu
29. Tawny Eagle	<i>Aquila rapax vindhiana</i>	R	C	Suparana
30. Greater Spotted Eagle	<i>Aquila clanga</i>	LM	O	--
31. Pallas's Fishing Eagle	<i>Eagle ihaliacectus</i>	LM	U	--
32. Greyheaded Fishing Eagle	<i>Icthyophaga iethyaetus</i>	R	U	--
33. Indian Whitebacked Vulture	<i>Gyps bengalensis</i>	R	C	Shubhrapathi
34 red-headed vulture	<i>Sarcogyps calvus</i>	R	U	Gidhad
35 Egyptian vulture	<i>Neophron percnopterus</i>	R	U	Harin
36 griffon vulture	<i>Gyps fulvus</i>	M	U	Daldali Harin
37. Pale Harrier	<i>Circus macrourus</i>	M	C	Trewala Sarpa
38. Marsh Harrier	<i>Circus aeruginosus</i>	M	C	Garud
39. Crested Serpent Eagle	<i>Spilornis cheels</i>	R	C	
FALCONIDAE : Falcons				
37. Lesser Kestrel	<i>Flacon naumanni</i>	M	U	Lahar Kestrel
PHASIANIDAE : Pheasant, Partridges, Quails				
38. Painted partridge	<i>Francolinus pictus</i>	R	C	Rangit Titar Rakhi Titar
39. Grey partridge	<i>Francolinus</i> <i>Pondicerianus</i>	R	C	Rakhi Durlav Kalya chaticha
40. Grey Quil Coturnix	<i>Conturnix</i>	R	C	durlav
41. Blackbreasted or Rain Quail	<i>Conturnix</i> <i>coromandelic</i>	R	C	Ranatale Zudupi Durlav
42. Jungle Bush Quail	<i>Perducula asiatica</i>	R	C	Chakotra Rangit Chakotra
43. Red Spurfowl	<i>Galoperdix spadicea</i>	R	C	Lal Rankombda
44. Painted Spurfowl	<i>Galoperdix lunulata</i>	R	U	Mor
45. Red Jungle Fowl	<i>Galhis gullus</i>	R	O	
46. Common Peafowl	<i>Povo cristatus</i>	R	C	

Common Name	Scientific Name	Movement	Abundance	Marathi Name
CUCULIDAE : Cuckoos				
68. Pied Crested Cuckoo	<i>Clamaator jacobinus</i>	LM	C	Chatak
69. Common Hawk Cuckoo or Brain Fever Bird	<i>Cuculus varius</i>	R	C	pavasya
70. Indian Cuckoo	<i>Cuculus micropterus</i>	R	C	Bhartiya Kukoo
71. Cuckoo	<i>Cuculus canorus</i>	LM	C	Kukoo
72. Koel	<i>Eudynamys scolopacea</i>	R	C	Kokila
73. Sirkeer Cuckoo	<i>Taccocua leschenaultia</i>	R	C	Kirkukoo
74. Cro-Pheasant or Coucal	<i>Centropus sinesis</i>	R	C	Bhardwaj
SIRIGIDAE : Owis				
75. Scops Owl	<i>Otus scops</i>	R	C	Sscop'sche Ghubd
76. Collared Scops Owl	<i>Otus bakkamoena</i>	R	C	Kantheri Scopsche Ghubad
77. Great Horned owl or Eagle - owl	<i>Babo bubo</i>	R	C	Shrungi Ghubad
78. Spotted Owlet	<i>Athene brama</i>	R	C	Thipkevale Ghubad
CARRIMULGIDAE: Nightjars				
79. Indian Jungle Nightjar	<i>Caprimulgus indicus</i>	LM	C	Bhartiya Ranratava Kapu
80. Common Indian Nightjar	<i>Caprimulgus asiaticus</i>	R	C	Samanya Ratava
APODIDAE : Swifts				
81. House Swift	<i>Apus affinis</i>	R	C	Durbal, Kanbai
ALCEDINIDAE : Kingfishers				
82. Pied Kingfisher	<i>Ceryle rudis</i>	R	C	Kavadya Dhivar.
83. Small Blue Kingfisher	<i>Alcedo atthis</i>	R	C	Kavadya
84. Storkbilled Kingfisher	<i>Pelargopsis capensis</i>	R	C	Khandya
85. Whitebreasted Kingfisher	<i>Haleyon smymensis</i>	R	U	--
		R	C	Kilkila
MEROPIDAE : Bee eaters				
86. Green Bee eater	<i>Merops orientalis</i>	LM	C	Veda Raghu Patinga panpopat
CORACIIDAE : Rollers				
87. Indian Roller	<i>Coracias benghalensis</i>	R	C	Tas, Nilkantha
UPUPIDAE : Hoopoe				
88. Hoopoe	<i>Upupa epops</i>	R	C	Hudhud
BUACERUTIDAE : Hornbills				

89. Common Grey Hornbill	<i>Tockus birostris</i>	R	C	Rakhi Shingchocha
90. Malabor Pied Hornbill	<i>Anthracoceros</i>	R	U	Kavadya Dhanesh, Chanchiri Malabaricus
CAPITONIDAE : Barbets				
91. Large Green Barbet	<i>Megalaima zeylanica</i>	R	C	Kuturga
92. Crimsonbreasted Barbet of Commperswith	<i>Megalaima</i> <i>Haemacephala</i>	R	C	Tambat, pukpukya
PICIDAE : Woodpeckers				
93. Lesser Goidenbacked Woodpecker	<i>Dinopiumbengalense</i>	R	C	Sompathi Sutar
94. Yellow fronted pied or Maratha Woodpecker	<i>Picoides mahrattensis</i>	R	C	Maratha Sutar
PITTIDAE : Pittas				
95. Indian Pitta	<i>Pitta brachyuran</i>	R	U	Navrang
ALAUDIDAE : Larks				
96. Refoustaileed Finch-Lark	<i>Ammomanes</i> <i>Phoenicurus</i>	LM	C	Muran
97. Deccan or Syke's Crested Lark	<i>Galerida deva</i>	LM	C	Turebaj Chandol
98. Small or Eastern Skylark	<i>Alauda gulgula</i>	R	C	Lahar Chandol
HIRUNDINIDAE : Swallows				
99. Dusky Crag martin				
100. Swallow	<i>Hirundo concolor</i>	R	C	Kalsar pakoli
101. Redrumped Swallow	<i>Hirundo rustica</i> <i>Hirunda daurica</i>	LM LM	C C	Bhandik Lalbudi Bhingri

Common Name	Scientific Name	Move-ment	Abun-dance	Marathi Name
LANIDAE : Shrikes				
102. Grey Shrike	<i>Lanius excubitor</i>	R	C	Rakhi Khatik
103. Baybacked Shrike	<i>Lanius vittatus</i>	R	C	Gandhan
104. Rufousbacked Shrike	<i>Lanius schach</i>	LM	U	Tambuspathi Khatik
105. Brown Shrike	<i>Lanius Cristatus</i>	Lm	U	Tapkin Khatik
ORIOLODAE : Orioles				
106. Golden Oriole	<i>Oriolus oriolus</i>	R	C	Hadya
107. Blackheaded Oriole	<i>Oriolus xanthornus</i>	R	C	Burkhi Haldya
DICRURIDAE : Drongos				
108. Black Drongo or King Crow.	<i>Dicrurus adsimilis</i>	R	C	Kolval
109. Whitebellied Drongo				
110. Large Racket tailed Drongo.	<i>Dicrurus caefulescens</i>	R	U	Shubhrapoti Kotval
	<i>Diorurus paradiseus</i>	R	U	Bhrungaraj
STUDNIDAE : Mynas				
111. Blackheaded or Brahminy Myna	<i>Sturnus pagodarun</i>	R	A	Brahming Myna
112. Rosy Starling of Rosy pastor	<i>Sturnus roseus</i>	M	C	Bhordi
113. Pied Myna			C	Kavadi Myna
114. Common Myna	<i>Sturnus contra</i>	R	A	Salunki
115. Bank Myna	<i>Acridotheres tristis</i>	R	U	Rakhi Salunki
116. Jungle Myna	<i>Acridotheres ginigianus</i>	R	U	Ran Myna
	<i>Acridotheres fuscus</i>	R		
CORIDAE : Crows, Magpies				
117. Indian Tree Pie	<i>Dendrocitta vegabunda</i>	R	C	Takkachor
118. House Crow	<i>Corvus splendens</i>	R	C	Kavala
119. Jungle Crow	<i>Corvus macrorhynchos</i>	R	C	Domkaval
CAMPEPHAGIDAE : Minivaets, Cuckoo, Shrikes				
120. Common Wood Shrike	<i>Tephrodornis pondicerianus</i>	R	U	Rankhaatik
121. Scarlet Minivet	<i>Pericrocotus flammeus</i>	R	C	Nikhar
122. Small Minivet	<i>Pericrocotus cinnamomeus</i>	R	C	Chota Nikhar

IRENIDAE : Iora, Chloropsis				
123. Iora	<i>Aegithina tiphia</i>	R	C	Subhag
124. Goldenfronted Chloropsis	<i>Chloropsis aurifrons</i>	R	C	Haritang
125. Jerdon's Goldenantied Chloropsis	<i>Chloropsis</i>	R	C	Harit Kanchan
PYCNOMOTIDAE : Bulbuls				
126. Redvented Bulbul	<i>Pysconotus cafer</i>	R	A	Samanya Bulbul
127. Whitebrowed Bulbul	<i>Pyconotus lutsolus</i>	R	U	Shubhrabhuvai Bulbul
MUSCICAPIDAE : Timalinae, Babblers				
128. Rufousbellied Babbler	<i>Dumetia hyperythra</i>	R	C	Tambuspoti Satbhai
129. Yelloweyed Babbler	<i>Chrysomma sinense</i>	R	C	Chipka
130. large Grey Babbler	<i>Turdoides caudatus</i>	R	C	Samanya Satbhar
131. Jungle Babbler	<i>Furdoides malcolmi</i>	R	C	Gosavi
132. Jungle Babbler	<i>Turodies stratus</i>	R	C	Ransatbhai
MUSCICAPINAE : Flycatchers				
133. Redbreasted Flycatcher	<i>Muscicapa parva</i>	M	U	Tambula
134. Verdier Flycatcher	<i>Muscicapa thalassina</i>	LM	U	Nilang
135. Greyheaded Flycatcher	<i>Culicicapa ceylonensis</i>	LM	C	Rakhindokyacha Nartak
136. Whitebrowed Fantail Flycatcher	<i>Rhipidura aureola</i>	R	C	Subhrabhuvai Nartak
137. Paradise Flycatcher	<i>Terpsiphone paradise</i>	R	C	Svargiya Nartaka
SYLVIINAE : Warblers				
138. Plain Wren Warbler	<i>Prinia subflava</i>	R	C	Sadha Vatvatya
139. Ashy Wren Warbler	<i>Prinia scialis</i>	R	C	Rakhi Vatvtya
140. Tailor Bird	<i>Orthobomus sutorius</i>	R	C	Shimpi
TURDINAE : Thrushes, Chats				
141. Bluethroat	<i>Erithacus svecius</i>	LM	U	Nilkantha
142. Magpie Rogin	<i>Copsychus saularis</i>	R	C	Daval
143. Black Redstart	<i>Phoenicurus ochrurus</i>	LM	C	Kala Bhirbhira
144. Collared Bush Chat	<i>Saxicola torquata</i>	LM	C	Gappidas
145. Pied Bush Chat	<i>Saxicola caprata</i>	LM	C	Kavadya Gappidas

Common Name	Scientific Name	Move-ment	Abun-dance	Marathi Name
146. Indian Robin	<i>Saxicoloides fulicata</i>	R	C	Chirak
147. Blue Rock Thrush	<i>Monticola solitarius</i>	LM	U	Pandu (Male) Mal (Female)
148. Whitethroated Ground Thrush	<i>Zootheraa citrine</i>	R	C	Shubhrakanthi Jamin kastura
PARIDAE : Tits				
149. Grey Tit	<i>parus major</i>	R	C	Rakhi Bulgut
MUTACILIDAE : Pipits, Wagtails				
150. Tree pipit				
151. Paddyfield pipit	<i>Anthus hidgsoni</i>	M	U	Vrukshiya Charachari
152. Yellow Wagtail	<i>Anthus navaeseelandiae</i>	R	C	Panthal Charchari
153. Yellowheaded Wagtail	<i>Motacilla flava</i>	LM	C	Pivala parit
	<i>Motacilla citreota</i>	LM	C	Pivlya Dokyacha Parit
154. Grey Wagtail				
155. White or Pied Wagtail	<i>Motacilla cinerea</i>	LM	C	Pandhara parit
156. Large Pied Wagtail	<i>Motacilla alba</i>	LM	C	Pandhra parit
	<i>Motacilla</i>	R	C	Kavadya parit
DICAEIDAE : Flowerpecker	<i>Maderaspatensis</i>			
157. Tickells Flowerpecker	<i>Dicaeum</i>	R	U	Tikelcha Pushpatocha
NECTARINIDAE : Sunbirds, Spiderhunters	<i>erythrorhynchos</i>			
158. Purple Sunbird		R	C	Jambhale
ZOSTERROPIDAE : White Eye	<i>Nectarinia asiatica</i>			
159. White Eye				
POLOCEIDAE “ Sparrows, Munnias, Weaver Bird	<i>Zosterops palph</i>	R	C	Chashmevala
160. House Sparrow				
161. Yellowthroated Sparrow				
162. Baya		R	A	Chimani
163. Whitethroated Munia	<i>passer domesticus</i>	R	C	Pitkanthi Chimani
		R	C	Sugran
164. Spotted Munia	<i>Ploceus philippinus</i>	R	C	Pandhrya Kanthachi
	<i>Lonchura malabarica</i>			Manoli
	<i>Lonchura punctulata</i>	R	C	Thipkedar Munia

KEY

MOVEMENT

R = Resident
LM = Local Migrant
M = Migrant

ABUNDANCE

A = Abundant
C = Common
O = Occasional

APPENDIX NO. XXVI

LIST OF PROMINENT FRESH WATER FISHES OF THE PENCH NATIONAL PARK

S.N.	Scientific Name	Local Name
1	<i>Amia calva</i>	Rengsa
2	<i>Amphipnous cuchia</i>	Tambu, Aaina
3	<i>Anguilla anguilla</i>	Bam
4	<i>Brachidani rario</i>	--
5	<i>Catle Catla</i>	Catla
6	<i>Cirrhinus mrigala</i>	Mrigal
7	<i>Clarias batrachus</i>	Magur
8	<i>Cyprinus carpio</i>	Cyprinus
9	<i>Grra mullya</i>	Khadakchati
10	<i>Heteropneustes fossilis</i>	Singan, Singhi
11	<i>Labeo kalbasu</i>	Kalbos
12	<i>Labeo rohita</i>	Rohu
13	<i>Mastocembaulus mastocembaulus</i>	--
14	<i>Megalops sp.</i>	Vadis
15	<i>Mystus seenghala</i>	Singta
16	<i>Notopterus chitala</i>	Patola
17	<i>Notopterus notopterus</i>	Patola
18	<i>Nemacheilus sp.</i>	--
19	<i>Ophiocephalus channa</i>	Marad
20	<i>Oxygaster buccala</i>	--
21	<i>Parasalorynchus sp.</i>	--
22	<i>Rasbora daniconius</i>	Daudavan
23	<i>Rasbora rasbora</i>	--
24	<i>Rita rita</i>	Katvam Katarna
25	<i>Wallago attu.</i>	Shivda, padan
26	<i>Tor putitora</i>	Golden Mahseer
27	<i>Tor khudree</i>	Deccan Mahseer
28	<i>Tor mosalla</i>	Deccan Mahseer

APPENDIX NO. XXVII
COMPARTMENTWISE LIST OF WATERPOINTS SELECTED FOR ESTIMATION

Range	Round	Beat	Comptt. No.	Number of Machans	Place
East Pench	Sillari	North Fulzari	541	1	Deorgota on the bank of Pench River
			543	1	Sodisurra nala near Hattigota TRT
			Central Fulzari	544	2
		545		1	On Karautar Nala
		South Fulzari	548	2	Gavalighat on the bank of Pench River
			North Kirangisarra	551	3
		552		1	Kirangisarra – on banks of Pench River
		561		1	Hand pump on Kirangisarra Road.
		Tuyapar	561	1	Pipariya Tank
		Pipariya	567	4	Borewell at Ghoti Check Gate
			568		
			566	1	Ghogra utar Nala
		Central Fulzari	570	1	Fefdikund Nala
		North Sillari	572	1	On the banks of Pench River
		Salama	Totladoh	538	5
	539				
North Salama	533		1	Fefdikund Nala	
			574	1	
Range	Round	Beat	Comptt. No.	Number of Machans	Place
		Central Bodalzira	526	4	Sadal dam No. 7 Hivardeonala – watch tower
		North Bodalzira	523	2	Nagdeo pahadi – Kandlal Road Bodalzira

West Pench	Ghatpendhari	West Kutumba	520	2	pavarthadi Nala- Bodalzira Nala
			519	2	Hivardeo Nala – Kutumba Nala
			516	2	Hivardeo Nala
		South Bodalzira	529	1	Submergence area
		Totladoh	527	5	On the banks of Pench River below the rest house. Ambakhori Nala
			528		
			530	1	
		Total of East Pench	537		
			538	1	Lamandoh – Daiturdhondi-Hattigota
		South Ghatpendhari		47	Shivandoh - Piprapani
		673	4	Gavalighat- panchdhar-Ranidoh – Saigondi	
		672	3	Kinnizodi	
		671	5	Datanjan	
681	1				
679	1				

Range	Round	Beat	Comptt. No.	Number of Machans	Place
		East Ghatpendhari	676	1	Sitanahani tower
			674	12	Ghoradgondi -Lamandoh Junapani – Ambakhori Nala
			677	2	Fukkidoh - Bellghat
			675	1	Gonniphaa
		West Ghatpendhari	684	3	Chichban – Dongerdeo Nala

			680	1	Chapatgota
		Amti	694	2	Lakhni Nala
			690,691	1	Amti Gadda
		Ghorad	689	3	Bandra Nala
			688	1	Borewell at Khekhdinala
		Narhar	661	1	Rohdeo Nala
			662	2	Borewell at Narhar salt lick Borewell at Anjanpani
		Kolitmara	668	1	Nandur Nala
			670	4	Gawalighat watch tower-Nagara gota-Kosam Khadak Nala Gaavalighat
		Surera	665	4	Adimodi Nala – Khadkya Nala- Ghoddeo Nala
			667	1	Dhobi Nala
		Total of West Pench	683	2	Pulimando – Usmad Nala
				56 <input type="checkbox"/>	

APPENDIX NO. XXVIII
LIST OF VILLAGES WITHIN 10 KM. RADIUS FROM THE BOUNDARY OF PENCH NATIONAL
PARK

A. Villages falling in Maharashtra State.

S.N.	Name of village of Maharashtra	Area in Ha.	Human population	Cattle Population
1	Khapa	279.16	286	288
2	Ghatkukada	245.88	219	447
3	Kolitmara	313.81	268	431
4	Surera	130.01	263	118
5	Narhar	220.45	398	437
6	Banera	550.69	297	194
7	Savangi	204.81	143	179
8	Dhavlapur	320.08	268	369
9	Ambazari	361.83	420	1209
10	Mehkapar	68.00	122	28
11	Kukadal	43.89	120	89
12	Bakhari (Rithi)	11.21	--	--
13	pathar	46.00	67	126
14	Kirangisarra	48.00	65	98
15	Saleghat	214.00	619	212
16	Sillari Wagholi	657.24	420	282
17	Pipariya	244.12	921	955
18	Salai	376.27	877	844
19	Ghote	426.08	667	642
20	Zinjariya	422.41	647	528
21	UsriPark	231.68	189	189
22	Dongartal	430.63	343	554
23	Saora	282.00	520	248
24	Kadbikheda	261.00	453	521
25	Deoplapar	20.67	2748	744
26	Januniya	63.90	171	89
27	Mohgaon (Rithi)	25.49	--	--
28	Dahoda	485.95	795	458
29	Shahapaur		161	91
30	pathari	100.19	102	62
31	Ambazari		606	345
32	Chargaon	9.21	94	221
33	Nawegaon	17.96	691	415
34	Sonegaon	24.68	98	124
35	Tuyapar		450	248
36	Kamathi		180	125
37	Hiwra		820	515
38	Sarra		--	--
39	Sarakha		567	370
40	Borda		1438	490
41	Pardi		51	119
42	Makardhokda		158	98
43	Siladevi		114	221
44	Gargoti		23	13

B) Village of Madhya Pradesh falling under Chhindwara District within 10 km Radius from the boundary of Pench National Park, M.S.

S.N.	Name of the villages	Total Cattle Population
1	Sasapani	181
2	Ghorad	428
3	Amti	313
4	Pilkapar	178
5	Kukda	251
6	Susurdoh	66
7	Chandkapur	581
8	Bisanpur	227
9	Kandal	307
10	Thuepani	--
11	Chierevani	--

APPENDIX NO. XXIX

LIST OF HUMAN HABITATIONS INSIDE THE PENCH NATIONAL PARK

There is only 1 village, namely Fulzari inside core area. The information regarding Fulzari village is as follow.

Sr .No	Name of the State	Name of Tiger Reserve	No of Villages in the Notified core area of Tiger Reserve	No of Families in the notified core area of Tiger Reserve	Grant Required for relocation of village Rs in (Lakh)	Grant Received (Lakh)	Balance Grant Required (Lakh)	First Installment distributed to the no of families	First Installment distributed to the families Rs. In (Lakh)	Place of Rehabilitation
1	Maharashtra	Pench Tiger Reserve	1	118	1180.00	400.00	780.00	14	14.00	Sangrampur

Documents regarding Fulzari village will be shown at the time of inspection

1. The Enquiry report of Pench National Park submitted by Sub Divisional Officer, Ramtek
2. Resolution of Gram sabha
3. The list of Families of Fulzari village
4. Notification under Section 11 sub section (i) Rehabilitation of Fulzari village.
5. Sanctioned Site of Rehabilitation of Fulzari village.

Note :-

- i) The temporary human habitations at Totladoh were the result of the Pench Hydro Electric Project at Totladoh. It was a settlement and not a village. It has been removed in year 2003.
- ii) Village Bodalzira which is included in National Park is not inhabited.

APPENDIX NO. XXX
LIST OF CHECKING NAKAS AND BARRIERS

Range	S.N	Place	Watch & Ward	Road	Remarks
East Pench	1	Paoni	Day/Night	Paoni-Totaldoh	Naka with steel barrier & gate. For regulation of tourist inflow & monitoring.
	2	Sillari	Day/Night	---do---	Naka with steel barrier. Tourist entry fees collection
	3	Sillari	Day/Night	Sillari- Fulzari	Steel barrier. Men at Sillari gate operate this gate.
	4	Salama	Day/Night	Paoni-Totladoh	Steel barrier, operated in night
	5	Salama	Day/Night	Salama-Sadaldam	Steel barrier, Men at Salama gate operate this gate. Entry in Tourism Zone.
	6	Salama	Day/Night	Salama-Bakhari	Steel barrier, Men at gate operate this gate.
	7	Ghoti	Day/Night	Ghoti-Fulzari	Naka with steel barrier.
	8	Khapa	Day/Night	Khapa-Bakhari	Naka with steel barrier.
	9	Hattigota	Day	Hattigota-Lamandoh	Steel barrier.
	10	Fefdikund	Day	Hattigota-fefdikund	Steel barrier, Man at Hattigota operates this gate
	11	Khursapar	Day	Khursapar Rd. Bakhari-Sadaldam	Naka with steel barrier. Steel barrier.Always kept locked.
	12	Bakhari	Unmanned	Ring Road	
	13	Sadaldam 7 th km.	Unmanned	Old Bodalzira Road	Wooden barrier. Always kept locked.
	14	Sadaldam 10 th km	Unmanned	Bakhari-Sadaldam Road.	Wooden barrier. Always kept locked.

West Pench	15	Meadow plot	Unmanned	Sadaldam- Chikhalkhari	Wooden barrier. Always kept locked.
	16	Sadaldam	Unmanned	Sadaldam- Nagdeopahari	Wooden barrier. Always kept locked. Naka with steel barrier.
	17	Kirangisarra	To be manned	Kirangisarra- Fulzari	Naka with steel barrier.
	18	Ghatpendhari	Manned Day/Night	Ghatpendhari- Totladoh	Wooden barrier. Both gates operated by same men.
	19	Ghatpendhari	Day/Night	Ghatpendhari-Narhar	Naka with steel barrier.
	20	Narhar	Day/Night	Narhar-Ghatpendhari Kolitmara-Narhar	1996-97 Naka with steel barrier.
	21	Kolitmara	Unmanned		

APPENDIX NO. XXXI

STATEMENT SHOWING YEARWISE POACHING CASES

S.N.	Year	Number of PORs	Nature of offence
1	1991-92	4	Poaching of Chital, Sambar and Nilgai for skin and meat.
2	1992-93	12	Poaching of Chital, Sambar and Nilgai, Civaet cat for skin, meat, antlers etc. illegal fishing
3	1993-94	11	Poaching of Chital, Sambar for skin, meat, antlers, illegat fishing. Poaching of sambar by electrocution. A tiger and tigress were killed through poisoning of the kill.
4	1994-95	10	Poaching of Chital, Sambar, Peacock, Turtle, birds for skin, meat, antlers etc. Use of traps, snares. Poaching of Chital, Sambar with the help of domesticated dogs. Illegal fishing.
5	1995-96	--	--
6	1996-97	--	--
7	1997-98	6	Poaching of wild boar, gaur, sambar for skin, meat, antlers, using electric current of overhead electric line and domestic dog.
8	1998-99	75	Illegal fishing etc.
9	1999-2000	12	Illegal fishing etc.
10	2004-05	59	Illegal fishing etc
11	2005-06	60	Illegal fishing etc
12	2006-07	58	Illegal fishing etc
13	2007-08	59	Illegal fishing etc
14	2008-09	32	Illegal fishing etc

East Pench, Pipariya

Sr. No.	POR No. & Date	Type of Offence Type	Name of Offender	Name of Court & Status of Case	Property Seized
1	3	4	5	6	7
2011-12					
1.	29/8, dt. 01/04/2011	Forest Fire	Unknown	Case Dropped	Fire burn Area 10.00 Ha.
2.	46/23, dt. 10/04/2011	Forest Fire	Unknown	Case Dropped	
3.	48/20, dt. 07/05/2011	Forest Fire	Unknown	Case Dropped	Fire burn Area 01.00 Ha.
4.	46/24, dt. 24/06/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 2 nos.
5.	49/15, dt. 13/07/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 5 Nos. Fish - 500 kg.
6.	49/16, dt. 26/07/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 3 Nos. Fish - 300 kg.
7.	49/17, dt. 14/08/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 8 Nos. Fish - 700 kg.
8.	43/19, dt. 26/08/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 1 Nos. Fish - 150 kg.
9.	33/8, dt. 14/09/2011	Illegal Fishing	Unknown	Case Dropped	Fish - 250 kg.
10.	55/1, dt. 14/09/2011	Illegal Fishing	Unknown	Case Dropped	Fish - 30 kg.
11.	43/20, dt. 18/09/2011	Illegal Fishing	1. Mr. Dharam Bhalavi 2. Mr. Eshwar Uike 3. Mr. Ashik Gajbe	JMFC, Ramtek	Cycle - 1 Nos. Fish - 40 kg.

12.	48/21, dt. 25/09/2011	Illegal Fishing	1. Mr. Chaitram Kumre 2. Mr. Harichand Inwate 3. Mr. Pancham Rathode	Case Dropped	Fish - 120 kg.
13.	44/17, dt. 21/10/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 4 Nos. Fish - 160 kg.
14.	49/18, dt. 25/10/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 5 Nos. Fish - 150 kg.
15.	42/20, dt. 06/11/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 8 Nos. Fish - 600 kg.
16.	46/25, dt. 10/11/2011	Illicit Cutting	Unknown	Case Dropped	
17.	55/2, dt. 28/11/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 4 nos. Teak Stump - 1 nos.
18.	44/18, dt. 17/12/2011	Illegal Fishing	Unknown	Case Dropped	Cycle - 2 Nos. Fish - 100 kg.
19.	9/24, dt. 31/12/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos.
20.	48/22, dt. 15/12/2012	Illegal Fishing	Unknown	Case Dropped	
21.	52/9, dt. 07/01/2012	Illegal Fishing	Unknown	Case Dropped	Nailone Net - 3 nos.
22.	49/9, dt. 11/03/2012	Illegal Fishing	Unknown	Case Dropped	Boat - 2 Nos. Nailone Net - 2 nos.
23.	52/10, dt. 15/03/2012	Illegal Fishing	1. Mr. Pawan Sukhpal Badashah Pulpuldoh 2. Mr. Somlal Harbal Tekam, Pulpuldoh 3. Mr. Ashok Shriram Kakad, Gangiwad	Case Dropped Court Case no. 35/12, dt. 19/05/2002	
24.	51/14, dt. 30/03/2012	Illegal Fishing	Unknown	Case Dropped	
2012-13					
25.	27/11, dt. 08/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 08.00 Ha.
26.	36/17, dt. 08/04/2012	Forest Fire	Unknown	Case Dropped	
27.	9/25, dt. 08/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 20.00 Ha.
28.	10/20, dt. 09/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 08.00 Ha.
29.	52/11, dt. 05/04/2012	Illegal Fishing	Unknown	Case Dropped	Boat - 1 No. Nailone Net - 3 nos.
30.	49/20, dt. 14/04/2012	Illegal Fishing	Unknown	Case Dropped	Cycle - 7 Nos.
31.	10/21, dt. 14/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 5.00 Ha.
32.	27/12, dt. 15/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 1/2 Ha.
33.	54/1, dt. 19/04/2012	Forest Fire	Unknown	Case Dropped	
34.	48/23, dt. 07/06/2012	Illegal Fishing	Unknown	Case Dropped	Cycle - 9 Nos.
35.	29/19, dt. 01/06/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 8.00 Ha.
36.	43/21, dt. 29/07/2012	Illegal Fishing	Unknown	Case Dropped	Cycle - 4 Nos. Fish - 500 Kg Net - 8 Nos
37.	42/21, dt. 22/07/2012	Illegal Fishing	Unknown	Case Dropped	Cycle - 4 Nos. Fish - 400 Kg
38.	51/15, dt. 07/08/2012	Illegal Fishing	Unknown	Case Dropped	Boat - 5 No.

					Nailone Net - 20 nos.
39.	51/1, dt. 31/08/2012	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos.
40.	42/22, dt. 21/08/2012	Illegal Fishing	Unknown	Case Dropped	Cycle -2 Nos.
41.	52/12, dt. 24/08/2012	Illegal Fishing	Unknown	Case Dropped	Boat - 2 Nos. Nailone Net - 7 nos.
42.	65/1, dt. 21/12/2012	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 7 nos.
43.	66/1, dt. 28/01/2013	Illegal Fishing	1. Mr. Rafik Khan vald Abdul Rehman, Khawasa 2. Mr. Anandrao Jivan Saryam, Garra	Case Dropped Court Case no. 28/2013, dt. 10/04/2013	Cycle - 2 Nos. Fish - 70 Kg

2013-14

44.	44/19, dt. 08/04/2013	Forest Fire	Unknown	Case Dropped	Fire burn Area 1 ½ Ha.
45.	43/22, dt. 13/04/2013	Forest Fire	Unknown	Case Dropped	Fire burn Area 2 to 2 ½ Ha.
46.	27/13, dt. 20/06/2013	Illegal Entry	Unknown	Case Dropped	Cycle - 3 Nos. Net - 4 nos.
47.	52/13, dt. 19/10/2013	Illegal Fishing	1. Mr. Sudram Shivcharan Jijote, Deolapar	JMFC, Ramtek 102/13, dt. 11/12/2013	Tube - 1 No. Net - 7 Nos. Fish - 5 Kg
48.	36/18, dt. 20/11/2013	Illicit Cutting	1. Mr. Aakash Shankar Uike, Fulzari 2. Mr. Suresh Aasaram Varkade, Ghoti	JMFC, Ramtek 09/2014, dt. 13/02/2014	1. Bailgadi - 1 No. 2. Cutter - 1 No. 3. Wasla - 1 no. 4. Paras - 1 no. 5. Teak Stump - 1 no.
49.	57/2, dt. 19/01/2014	Illicit Cutting	Unknown	Case Dropped	Cycle - 5 nos.
50.	56/11, dt. 10/02/2014	Illegal Fishing	Unknown	Case Dropped	Cycle - 16 Nos. Fish - 200 Kg.
51.	42/23, dt. 21/02/2014	Illegal Fishing	Hushiyarsingh Chhatarsing Chauhan, Garra	JMFC, Ramtek 16/14, dt. 18/03/2014	Fish - 20Kg

West Pench, Ghatpendhari

Sr. No.	POR No. & Date	Type of Offence Type	Name of Offender	Name of Court & Status of Case	Property Seized
1	3	4	5	6	7
2011-12					
1.	20/14, dt. 15/04/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 3 nos. amt. Rs. 2300/- Teak - 3 nos. amt. Rs. 2477/-
2.	20/15, dt. 17/04/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 8 nos. amt. Rs. 150/-
3.	73/16, dt. 24/04/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 22 nos. amt. Rs. 1275/-

					Teak - 14 nos. amt. Rs. 554/-
4.	74/8, dt. 13/04/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 8 nos. Teak Stump - 2 nos.
5.	74/9, dt. 29/04/2011	Illicit Cutting	Unknown	Case Dropped	Teak - 6 nos. amt. Rs. 160/-
6.	72/13, dt. 07/05/2011	Forest Fire	Unknown	Case Dropped	Fire burn Area 18 Ha.
7.	74/10, dt. 28/05/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 12 nos. amt. Rs. 240/-
8.	25/25, dt. 29/05/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 07 nos. amt. Rs. 1200/- Teak - 4 nos. amt. Rs. 2456/-
9.	20/16, dt. 21/07/2011	Beat Checking	Unknown	Case Dropped	Teak Stump - 4, 23/30, 31/45
10.	73/7, dt. 25/07/2011	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 03 nos.
11.	75/2, dt. 06/08/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos. Teak Stump - 1 nos.
12.	2180/23, dt. 22/08/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos. Teak Stump - 1 nos.
13.	73/18	Illicit Cutting	Unknown	Case Dropped	-
14.	20/7, dt. 11/10/2011	Illicit Cutting	Unknown	Case Dropped	
15.	74/12, dt. 23/10/2011	Illicit Cutting	Unknown	Case Dropped	
16.	74/13, dt. 02/11/2011	Beat Checking	Unknown	Case Dropped	
17.	72/14, dt. 29/11/2011	Illicit Cutting & poaching	Mr. Rajkumar Aakhadu Uike	Case Dropped	-
18.	29/9, dt. 29/11/2011	Illicit Cutting	Unknown	Case Dropped	
19.	20/18, dt. 22/12/2011	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - (31/45) 2 no. & 31/45 - 3 nos. Teak Stump - 5 nos.
20.	73/19, dt. 18/01/2011	Beat Checking & Illicit Cutting	Unknown	Case Dropped	
21.	74/14, dt. 25/01/2012	Beat Checking & Illicit Cutting	Unknown	Case Dropped	
22.	2180/25, dt. 31/01/2012	Beat Checking & Illicit Cutting	Unknown	Case Dropped	
23.	76/1, dt. 22/02/2012	Illicit Cutting	Unknown	Case Dropped	
24.	73/20, dt. 26/02/2012	Illicit Cutting	Unknown	Case Dropped	
25.	70/24, dt. 11/03/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 5.00

					Ha.
26.	76/2, dt. 09/03/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 3.00 Ha.
2012-13					
27.	70/25, dt. 05/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 05.00 Ha.
28.	75/3, dt. 08/04/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 6.00 Ha.
29.	74/15, dt. 14/04/2012	Forest Fire	Unknown	Case Dropped	-
30.	76/3, dt. 20/04/2012	Forest Fire	Unknown	Case Dropped	-
31.	64/1, dt. 27/04/2012	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 6 no. Teak Stump - 6 nos. amt. Rs. 925/-
32.	72/15, dt. 03/05/2012	Forest Fire	Unknown	Case Dropped	Fire burn Area 12.00 Ha.
33.	72/16, dt. 23/05/2012	Illegal Tendu Leaves Collections	Mr. Dadarao Tukaram Inwate	-	-
34.	69/1, dt. 12/06/2013	Illicit Cutting	Unknown	Case Dropped	stumps - 64 nos. amt. Rs. 44815/- stumps - 46 nos. amt. Rs. 20359/-
35.	72/17, dt. 29/06/2012	Illicit Cutting	Mr. Birbal bhivaji Dhurve, Navegaon Khairi, Parsioni	JMFC, Parshioni	-
36.	73/21, dt. 22/06/2012	Illicit Cutting	Unknown	Case Dropped	
37.	72/18, dt. 02/07/2012	Illicit Cutting	Mr. Ramesh Shrichand Varkhade Mr. Duryodhan Ramji Varkhade Bharat Ganpanti Varkhade	JMFC, Parshioni	Miscellaneous Stump - 6 no. Teak Stump - 5 nos. amt. Rs. 19215/-
38.	73/22, dt. 07/07/2012	Illicit Cutting	Unknown	Case Dropped	amt. Rs. 5046/-
39.	76/4, dt. 11/08/2012	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos. (45/60) & (20/30) Teak Stump - 1 no (45/60)
40.	74/11, dt. 15/09/2012	Illicit Cutting	Unknown	Case Dropped	-
41.	72/19, dt. 26/09/2012	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 2 nos. amt. Rs. 1479/-
42.	63/1, dt. 30/09/2012	Illicit Cutting	Unknown	Case Dropped	
43.	20/19, dt. 26/10/2012	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 4 nos. amt. Rs. 805/-Teak Stump - 5 no amt. Rs. 1817/-
44.	73/23, dt. 28/10/2012	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 5 nos. amt. Rs. 8375/- Miscellaneous Stump

					- 4 nos. amt. Rs. 6716/-
45.	63/2, dt. 12/11/2012	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 3 nos. Miscellaneous Stump - 4 nos.
46.	76/5, dt. 27/11/2012	Illicit Cutting	Unknown	Case Dropped	Teak amt. Rs. 1391/-
47.	63/2, dt. 12/11/2012	Illicit Cutting	Unknown	Case Dropped	Stump - 4 nos. amt. Rs. 1015/-
48.	76/6, dt. 25/02/2013	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 1 no. amt. Rs. 1319/-
49.	72/20, dt. 01/03/2013	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 3 nos. amt. Rs. 2010/- Miscellaneous Stump - 2 nos. amt. Rs. 2300/-
50.	76/7	Illicit Cutting	Unknown	Case Dropped	Miscellaneous Stump - 2 nos. amt. Rs. 175/-
51.	20/21, dt. 29/03/2013	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 3 nos. amt. Rs. 2514/- Miscellaneous Stump - 3 nos. amt. Rs. 1840/-
2013-14					
52.	76/8, 16/04/2013	Forest Fire	Unknown	Case Dropped	Fire burn Area 04.00 Ha.
53.	20/22, dt. 29/05/2013	Illegal Transport	Mr. Mehatu Maliram Admachi, Ghatpendhari		Bailbandi - 1 Ox - 2 Nos. Other
54.	63/4, dt. 27/06/2013	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 3 nos. amt. Rs. 1160/-
55.	73/24, dt. 08/01/2014	Illicit Cutting	Unknown	Case Dropped	Teak Stump - 2 nos. amt. 61/75, 76/90, 46/60
56.	72/22, dt. 30/01/2014	Illicit Cutting	Unknown	Case Pending	Teak Stump - Rs. 900/- Miscellaneous Stump - amt. Rs. 890
57.	73/25, dt. 30/01/2014	Illicit Cutting	Unknown	Case Pending	Teak Stump - 3 nos. amt. Rs. 10880/-
58.	20/23, dt. 20/01/2014	Illicit Cutting	Unknown	Case Pending	Teak Stump - 4 nos. Rs. 1220/- Miscellaneous Stump - 2 nos. amt. Rs. 1245/-
59.	76/9, dt. 06/02/2014	Illicit Cutting	Unknown	Case Pending	Teak Stump - 24 nos. amt. 61/75, 46/60
60.	63/5, dt. 13/02/2014	Illicit Cutting	Unknown	Case Pending	Teak Stump - Rs. 1400/-
61.	69/2, dt. 02/03/2014	Illegal Poaching & Transport	Mr. Bhiklesh Brijmohan Chaoudhari Mr. Khilendra Hirasing	JMFC, Ramtek	Reddish Colored skin of lion Paw with nail

			<p>Dhurve Mr. Mukesh Ramesh Admachi Mr. Kishor Shivdas Kumbhare Mr. Ganveer / Ganesh Fatu Uike Mr. Nathulal Premlal Patle</p>	<p>attached to bone Skin leopard - 100cm from tip of nose to tail - 173 cm ATM Card SBI Bank -3nos. Driving Lia. - 3 nos. Pan Card - 2 nos. Mobile - 3 nos. Scorpio vehicle - 1 no. Voter ID card - 2 nos Adhaar Card - 2 Desi Ghee Bottle - 1 no.</p>
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APPENDIX NO. XXXII

Government of India's order regarding ban on collection of shed antlers.

No. 3-8/90 WL I

Dated 18/09/1998

To,

The Chief Wildlife Warden,

All States/UT's

Sub :- Ban on collection of shed antlers regarding.

Sir,

There are reports of large number of deer being killed by poachers for the sake of getting antlers. As a result population of herbivores (mainly males) has been declining significantly in various protected areas. It has also come to the notice of this Ministry that antlers of other deer namely Kashmir stag (Hangul) which is included in Scheduled I of the Act are also being mixed in the Chital and Sambhar antlers and it is very difficult to isolate the antlers of Kashmir stag once it is cut into pieces. Moreover studies have shown that the antlers have a significant role to play with respect to its calcium contents in recycling nutrients in a number of forests species.

In order to safeguard the declining population of deer in the country this Ministry has decided to ban the collection of shed antlers of Chital and Sambhar with immediate effect. Ministry of Commerce has already prohibited the export of manufactures articles and shavings of shed antlers of Chital and Sambhar vide notification No. 12 (RE)/1997-2002 dated 04/08/1998. You are therefore requested to kindly take necessary action to check the collection of shed antlers from the wild.

Your's faithfully

Sd/-

(SURESH CHUGH)

Joint Director (WL)

Copy to :

RDDs, NR/WR/ER/SR

The Asstt. Director, Sub Reg. Office, Amritsar.

APPENDIX NO. XXXIII
LIST OF FIRE STATIONS IN PENCH NATIONAL PARK

Ranges	Round	Name of Fire Station	Location (Comptt.)
East Pench	Sillari	Ranidoh	546
		Hattigota	542
	Salama	Bivsen nalla	514
		Old Bodalzira	529
		Bakhari	574
West Pench	Ghatpendhari	Sadaldam	517
		Ghioddeopahadi (Narhar)	681

APPENDIX NO. XXXIV

STATEMENT SHOWING YEARWISE DETAILS OF BURNT AREA

Year	Range			
	East PENCH		West PENCH	
	No. of cases	Area burnt (Ha)	No. of cases	Area burnt (Ha)
1990	4	100	--	--
1991	13	2648	8	3120
1992	21	2703	16	3440
1993	35	944	23	518
1994	37	961	31	2898
1995	16	124	4	8
1996	15	1264	2	420
1997	16	1200	10	3938.019
1998	--	--	1	60
1999	19	164	8	535
2000	15	272	4	74
2001	9	376.50	5	31
2002	4	28	6	26
2003	20	593	5	20
2004	9	425	12	1278
2005	13	803	1	100
2006	2	25	1	150
2007			6	307
2010		130		45
2011		18		0
2012		8		0
2013		4		4

APPENDIX NO. XXXV

STATEMENT SHOWING DETAILS OF CATTLE VACCINATION

Range	Name of Village of Settlement	S.N.	Year wise vaccination of cattle				
			1989-90	1990-91	1991-92	1993-94	1994-95
East Pench	Fulzari	1	400	400	400	150	--
	Salama	2	100	100	100	--	--
	Totladoh	3	500	400	600	200	--
	Salai	4	--	220	320	400	--
	Ghoti	5	--	100	320	550	500
	Vaghoti	6	--	180	260	180	150
	Sillari	7	--	200	460	--	--
	Khapa	8	--	200	400	200	350
	Patrai	9	--	200	220	--	--
	Tuyapar	10	--	--	220	150	--
	Pipariya	11	--	--	--	460	--
	Zinzariya	12	--	--	--	250	--
West Pench	Kolitmara	13	--	--	280	--	150
	Banera	14	--	--	280	--	--
	Narhar	15	--	--	400	314	300
	Surera	16	--	--	180	--	--
	Ghatpendhari	17	--	--	420	346	200
	Dhavlapur	18	--	--	140	--	--
	Salaitola	19	--	--	--	200	--

Note :- No vaccination since 1995-96 to 1998-99.

Year	Number of villages (Within and outside protected area)	Number of cattle vaccinated
2001-2002	6	2185
2002-2003	15	2659
2003-2004	14	3017
2004-2005	17	3694
2005-2006	39	7477
2006-2007	52	14440
2007-08	-	
2012-13	12	2500

Only few villages could be covered during 2007-08.

APPENDIX NO. XXXVI
STATEMENT SHOWING NUMBER OF TOURISTS VISITING PENCH NATIONAL PARK

S.N.	Month	YEAR														
		98-99	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	April	3466	2119	2813	1189	1051	786	496	601	974	1136	1475	1235	2357	2101	2274
2	May	1713	3305	2152	677	1276	1594	648	1012	924	2098	1467	1888	2402	413	2515
3	June	3815	3578	3477	2557	1371	1955	1268	1454	2158	2741	2154	2113	1855	169	2343
4	July	2776	2049	2534	2206	738	1142	102	225	95	545	61	67	117	170	620
5	August	5987	4329	3295	3094	327	963	214	55	165	117	99	86	144	142	1147
6	September	2492	4583	4465	2891	324	1097	260	99	137	200	71	80	118	79	787
7	October	6776	4753	3102	1970	664	1439	970	2929	1575	2342	1755	1964	2946	886	856
8	November	11256	10595	6324	4944	3942	3278	3863	3250	3294	3626	3186	4583	4815	3221	4438
9	December	25291	28580	17458	14773	6154	4825	5286	6109	7096	5675	6315	6137	6399	3373	5258
10	January	26669	23191	21141	12182	4971	4734	2797	4328	4928	5648	4071	6610	4817	2861	3741
11	February	10334	7911	7730	4302	3135	1897	1719	2252	2666	2167	1868	2799	3112	2075	3153
12	March	3862	2911	2430	1472	1272	993	1245	1334	1772	1480	1534	1664	1974	2407	2304
	Total	104437	97904	76921	52257	25225	24703	18868	23648	25784	27775	24056	29226	31056	17897	29436

APPENDIX NO. XXXVII
Tourist Accomodation in and Around Pench Tiger Reserve, Nagpur

Pench National Park derives its name from the Pench River, which meanders along its central line like a big python and divides the park areas into two management units viz. East Pench and the West Pench. The forest tracts of the National Park is contiguous on the northern side to forest tracts of Seoni and Chhindwara districts of Madhya Pradesh, which have also been notified as Pench National Park and Tiger Reserve (MP).

The undulating topography support mosaic of vegetation ranging from moist sheltered valleys to open dry deciduous forests. The forests in composition and structure epitomize the Mixed High Forests with high density, comprising layers of over wood, Underwood, bamboo, shrubs, herbs grasses and climbers. The area is a living repository of over 2000 species of plants and, hence, forms a suitable abode for a wide variety of faunal species of this region. This region includes several rare and endangered plants as well as plants of ethno-botanical significance.

The park is well connected to Nagpur and other towns in the region through a good network of all weather roads. It is 30 km. away from Nagpur on Nagpur – Jabalpur National Highway no.7. It has two main entry points, namely, at Sillari in East Pench and at Kolutmara in West Pench. It is accessible by Rail, Road and Air. The nearest main railway station is Nagpur (65 km. from Sillari). The nearest airport is at Nagpur (75 km from Sillari). The nearest Petrol/Diesel pumps are situated at Paoni (5 km from Sillari) and Mansar (25 km from Sillari). Telephone facility is available at Sillari, Paoni, Deolapar, Parseoni, Pipariya. Post and telegraph offices are at Deolapar & Parseoni, etc.

For stay at Sillari, Amaltas Complex has been established. Facilities in Amaltas Complex are Eco huts, E cozy Huts , Dormitory & Canteen facilities are available. For promotion of eco-tourism Interpretation Center cum Auditorium, Museum cum Library facilities are available at Sillari. At Kolutmara Eco huts are available. Also Canteen facility is available at Kolutmara Complex and Interpretation Center with library can be availed by the visitors.

For Online Reservation of accommodation in Pench TR. (Maharashtra) visit web site – www.maharashtratourism.gov.in

FACILITIES AVAILABLE IN PENCH TIGER RESERVE

Sr. No.	Tiger Reserve	Name of Facilities	No of suites	Whom its belong	Tariff per day	Maximum Persons Allowed
1	<u>Pench Tiger Reserve</u> a) Sillari (Amaltas Complex)	Eco huts	13 suites	Pench Tiger Reserve	600/-	2 Adults & 2 Children
		E cozy huts	8 suites		700/-	As above
		Dormitory	17 bed		50/- per Bed	1 person per bed
		Auditorium/ Interpretation centre			2000/- Per day	

- Check out time will be 12.00 hours.
- Cancellation procedure will be as under:-
 - a. Before 10 days from the day the facility has been booked 50% amount will be reimbursed.
 - b. Before 05 days from the day the facility has been booked 25% amount will be reimbursed.
 - c. Below 05 days amount will be forfeited.
- Canteen facility is also available at Sillari Amaltas Complex
- Nature trail has also been laid down near Sillari. Nature lovers can also avail this facility.
- Tent facilities will be commissioned shortly.
- Sillari is approachable from Nagpur by National Highway No. 7 up to Paoni 65 km.
- From Paoni to Sillari all weather tar road 5 km

Sr. No.	Tiger Reserve	Name of Facilities	No of suites	Whom its belong	Tariff	Maximum Persons Allowed
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1	<u>Pench Tiger Reserve</u>	Eco huts	6 suites	Pench Tiger Reserve	600/-	2 Adults & 2 Children
	a) Kolutmara	Tent	10 Nos.		50/- per Bed	1 person per bed

- Check out time will be 12.00 hours.
- Cancellation procedure will be as under:-
 - a. Before 10 days from the day the facility has been booked 50% amount will be reimbursed.
 - b. Before 05 days from the day the facility has been booked 25% amount will be reimbursed.
 - c. Below 05 days amount will be forfeited.
 - d. Canteen facility is also available at Kolutmara Complex.
- Tent facilities will be commissioned shortly.
- Kolutmara is approachable from Nagpur by National Highway No. 07 up to Ambdi diversion 40.00 Km.
- Ambdi Diversion to Parshivani by State Highway No. 249 10 Km. From Parshivani to Narhar by all weather tar road 32 Km. Narhar to Kolutmara by Metal Road 04 Km. Total Nagpur to Kolutmara 86.00 Km.

Classification of buildings indicated above are as under.

1. Interpretation center and Auditorium. Name- *Tiger Tale*
 - A. The Structure houses interpretation centre and auditorium.
 - B. Only for auditorium the charge will be Rs. 2,000/- per day (Seating capacity 50 persons.)
 - C. Entry in Interpretation Centre is free. Both are separate establishments in one structure.
2. At Sillari Dormitory comprises of a single hall with 17 beds. Charges indicated are per bed and tourist have to book 17 beds.

Booking for Sillari Eco-Huts 13 Nos., E cozy huts 8 Nos. & Dormitory 17 beds can be given. Also booking for 6 Eco huts at Kolutmara can be given.

Tents are under renovation the same may be given after completion.

The date for issue of booking for tents will be informed subsequently.

For entry in the Pench National Park there are two entry points.

- 1) Sillari gate
- 2) Kolutmara gate

- For Online booking for Entry in Pench TR. (Maharashtra) visit – www.mahaecotourism.gov.in

ENTRY FEE APPLICABLE FROM 1ST OCTOBER, 2013

- Above 12 yrs. Of age Rs. 75/- per head
- Below 12 yrs. Of age Rs. 25/- per head
- Light motor vehicle Rs 400/- each
- Minibus – Rs. 800/-
- Guide fee Rs 200/-

ENTRY TIMING

- Morning – 6.30 To 8.30 AM Exit by 10.00 AM.
- Evening – 3.00 To 4.30 PM Exit by 6.30 PM.
- Timings are liable for change as per seasons due to change in time of sunrise and sunset

SILLARI AMALTAS COMPLEX

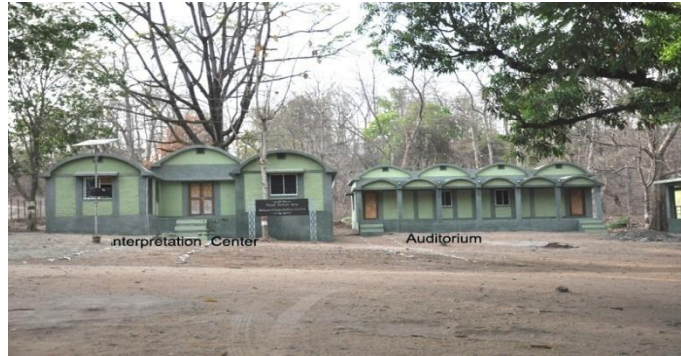


SILLARI ECO HUTS



SILLARI TENT COMPLEX

KOLITMARA COMPLEX



KOLITMARA ECO HUTS



The postal address are as under.

**OFFICE OF THE CHIEF CONSERVATOR OF FORESTS & FIELD DIRECTOR,
PENCH TIGER RESERVE, NAGPUR.**

Near Govt. Press Civil lines, Nagpur 440 001

Tel No 0712-2560727/2560748

E-mail ccffdpench@mahaforest.gov.in

Web site – www.mahapenchtiger.com

Office of the Range Forest Officer, East Pench, Pipariya

At: - Sillari, Post: - Pipariya

Tah. : - Ramtek, District: - Nagpur

Ph. No.07114-202300

Office of the Range Forest Officer, West Pench, Ghatpendhari

At. Post: - Kolitmara

Tah. Parshioani, District: - Nagpur

APPENDIX NO. XXXVIII

LIST OF WATCHTOWERS AND HIDES

Range	S.N.	Place	Comptt.	Material	Remark
East Pench	1	Gavalighat	548	Wooden	Dilapidated
	2	Hattigota	544	Steel	Neds repair
	3	Parvidoh	546	Steel	Needs repair
	4	Lamandoh	539	Wooden	Dilapidated
	5	Hattigota	541	Wooden	Needs repair
	6	Old Bodalzira Rd	527	Steel	Erected in 95-96
	7	Fefdikund	572	Concrete	Hide
	8	Gavalighat	546	Concrete	1996-97
	9	Sadal dam	526	Concrete	1996-97
	10	Submergence	520	Concrete	1996-97 Hide
West Pench (Zilmilli)	11	Gavalighat	669	Steel	Needs repair
	12	Gavalighat	669	Wooden	Dilapidated
	13	Kheddinala	687	Steel	Dilapidated
	14	Lamandoh	673	Wooden	Dilapidated
	15	Chipadnala	683	Steel	Needs repair
	16	Sitanahani	678	Concrete	1996-97
	17	Dongardeo	684	Concrete	1996-97

APPENDIX NO. XXXIX

DETAILS OF POSTS HANDED OVER BY NAGPUR FOREST DIVISION

S.N.	Name of the Post	No.	Head Quarter	Duty
I	Asistant Conservator of forest	1	Nagpur	ACF (Anti Poaching Unit) presently looking after the Pench Tiger Reserve.
II	Range Forest Officer	2	Pipariya	Of these one temporarily from Nagpur Dn. Looking after West Pench Range
III	Foresters			Round Office
1	R..O.Salama	1	Salama	Round Office
2	R.O. Sillari	1	Sillari	Special Duty
3	For special duty	1	Sillari	Round Office
4	R.O. Ghatpendhari	1	Ghatpendhari	Special Duty
5	For Special duty	1	Narhar	
IV	Forest Guard			Beat Guard
1	North Fulzari Beat	1	Sillari	Beat Guard
2	Central Fulzari Beat	1	Sillari	Beat Guard
3	South Fulzari Beat	1	Ranidoh	Beat Guard
4	North Kirangisarra Beat	1	Sillari	Beat Guard
5	Tuyapar Beat	1	Tuyapar	Beat Guard
6	Pipariya Beat	1	Pipariya	Beat Guard
7	North Sillari Beat	1	Sillari	Beat Guard
8	East Chikhalkhari Beat	1	Salama	Beat Guard
9	West Chikhalkhari Road	1	Salama	Beat Guard
10	North Bodalzira Beat	1	Salama	Beat Guard
11	Centre Bodalzira Beat	1	Salama	Beat Guard
12	South Bodalzira Beat	1	Salama	Beat Guard
13	West Kutumba Beat	1	Salama	Beat Guard
14	East Kutumba beat	1	Salama	Beat Guard
15	Totladoh Beat	1	Totladoh	Beat Guard
16	South Salama Beat	1	Salama	Beat Guard
17	North Salama Beat	1	Salama	Checkinh Guard
18	Checking Gate Paoni	3	Paoni	Special Guard
19	Special Duty Sillari	1	Sillari	Special duty guard
20	Special duty Salama	1	Salama	Beat Guard
21	South Ghatpendhari Beat	1	Ghatpendhari	

S.N.	Name of the Post	No.	Head Quarter	Duty
22	East Ghatpendhari Beat	1	Ghatpendhari	Beat Guard
23	West Ghatpendhari Beat	1	Ghatpendhari	Beat Guard
24	Amti Beat	1	Amti	Beat Guard
25	Ghorad Beat	1	Ghorad	Beat Guard
26	Narhar Beat	1	Narhar	Beat Guard
27	Surera Beat	1	Surera	Beat Guard
28	Special Duty	1	Kirangisarra	Beat Guard
29	Kirangisarra Beat	1	Kirangisarra	Beat Guard
30	Special Duty	1	Narhar	Beat Guard
V	Khansama	1	Totladoh	Rest House
VI	Accountant	1	Pipariya	Range Office
VII	Clerk	1	Pipariya	Range Office

APPENDIX NO. XL

**STATEMENT SHOWING VARIOUS ADMINISTRATIVE UNITS OF
PENCH NATIONAL PARK WITH HEAD QUARTERS**

Range	Round (Hq)	Beat	Beat (Hq)	Compartments	
East Pench (Pipariya)	Salama (Salama)	East Chikhalkhari	Salama	511,513	
		East Kutumba	Salama	514, 515	
		West Chikhalkhari	Salama	517,518	
		North Bodalzira	Salama	519, 520, 521, 522	
		Central Bodalzira	Salama	523,524, 525, 526	
		South Bodalzira	Salama	527, 528, 530	
		West Kutumba	Salama	516, 529, 531	
		North Salama	Salama	523, 533, 534, 574, 575	
		South Salama	Salama	535, 536, 540	
		Totladoh	Totladoh	537, 538, 539	
	Sillari (Pipariya)	North Fulzari	Pipariya	541, 542, 543	
		South Fulzari	Sillari	545, 546, 547, 548, 549	
		North Kirangisarra	Sillari	550, 551, 552	
		Tuyapar	Tuyapar	561, 562, 563, 564	
		Pipariya	Pipariya	566, 567, 570	
		Central Fulzari	Pipariya	544, 565, 570	
		North Sillari	Sillari	569, 571, 572, 573	
	Ghatpendhari (Pipariya)	Narhar	Narhar	Narhar	661, 662, 663, 664, 687, 692 665, 666, 667, 683,
		Narhar	Surera	Kolitmara	691, 693, 694
Narhar		Amti	Amti	668, 669, 670, 682	
Narhar		Kolitmara	Kolitmara	671, 672, 673, 679, 681	
Ghatpendri		South Ghatpendhari	Ghatpendhari	674, 675, 676, 677, 227	
Ghatpendri		East Ghatpendhari	Ghatpendhari	678, 680, 684, 685	
Ghatpendri		West Ghatpendhari	Ghatpendhari	686, 688, 689, 690	
Ghatpendri		Ghorad	Ghorad		

APPENDIX NO. XLI

LIST OF VARIOUS BUILDINGS EXISTING IN PENCH NATIONAL PARK

S.R.	Type of Building	Location	No.
1	East Pench Range Type III qtr.	Pipariya	2
		Totladoh	1
2	Type II qtr.	Pipariya	1
		Sillari	1
		Salama	1
3	Type I qtr	Paoni	2
		Piopariya	4
		Sillari	3
		Tuyapar	1
		Fulzari	2 (Dilapidated)
		Salama	3
		Totladoh	2
		Kirangisarra	2 (One is dilapidated)
		Salama	1
		4	Labour Shed
Sillari	5		
Salama	8		
Totladoh	1		
5	Watch man cum cook qtr.	Ranidoh	3
		Totladoh	2
6	Rest House	Ranidoh	1
		Totladoh	1
7	Office building	Pipariya	1
8	Wireless Station	Pipariya	1
		Totladoh	1
9	Check Naka	Paoni	1
		Sillari	1
		Ghoti	1
		Khapa	1
		Khursapar	1

S.R.	Type of Building	Location	No.
10	Store room/Kitchen	Ranidoh	1
		Totladoh	1
11	Garage	Ranidoh	1
		Pipariya	1 (Converted into Wireless Staion)
12	Engine House	Ranidoh	1
13	Watchman naka	Sadaldam No. 7	1 (Repaird in 96-97)
14	Open dug well	Ranidoh	1
		Fulzari	1
		Salama	1
		Totladoh	1
	<u>West Pench Range</u>		
15	Type II qtr.	Ghatpendhari	1
		Narhar	1
16	Type I qtr.	Ghatpendhari	3
		Ghorad	1
		Narhar	1
		Kolitmara	1
		Kirangisarra	1
17	Labour shed	Narhar	2
		Ghatpendhari	1
18	Rest House	Kolitmara	1
19	Inspection hut	Ghatpendhari	1
20	Kitchen/Store room	Ghatpendhari	1
		Kolitmara	1
21	Wireless Station	Ghorad	1
		Narhar	1
22	Open dug well	Ghatpendhari	1
		Narhar	1
		Kolitmara	1 (Society's)

APPENDIX NO. XLII

**LIST OF VEHICLES WITH PENCH NATIONAL PARK List of Vehicles in Pench Tiger Reserve,
Nagpur**

Sr. No.	Vehicles in uses Up to 30/09/2013			
	Registration No. of Vehicles	Model of Vehicle	Type of Vehicle	User of Vehicle
1	MH-31/CV 119	Swift Dzire	Swift Dzire	CCF & FD, PTR
2	MH-31/AG 9481	Quails	Quails	Dy. Director, Pench Tiger Project - 1
3	MH-31/7330	407 TATA Mini Truck	Mini Truck	RFO, East Pench
4	MH-31/AG 9550	Tractor	Tractor	RFO,East Pench
5	MH-31/AG 9551	Trolley	Trolley	RFO,East Pench
6	MH-31/CQ 8884	Bolero Camper	Bolero Camper	RFO,East Pench
7	MH-31/BM 146	Yamaha Libro	Yamaha Libro	RFO,East Pench
8	MH-31/BM 147	Yamaha Libro	Yamaha Libro	RFO,East Pench
9	MH-31/BM 148	Yamaha Libro	Yamaha Libro	RFO,East Pench
10	MH-31/AX 103	Yamaha YBX	Yamaha YBX	Salama, RFO,East Pench
11	MH-31/AX 105	Yamaha YBX	Yamaha YBX	Sillari, RFO,East Pench
12	KL-11/S 8079	Bullet	Bullet	RFO,East Pench
13	MH-31/J 454	Bullet	Bullet	RFO,East Pench
14	Boats (4 nos)			RFO, East Pench
15	MH-31/CQ 8885	Bolero Camper	Bolero Camper	RFO,West Pench
16	MH-31/AS 180	Yamaha	Yamaha	Narhar, RFO,West Pench
17	MH-31/AX 106	Yamaha	Yamaha	RFO,West Pench
18	KL-11/S 8068	Bullet	Bullet	RFO,West Pench
19	MH-31/AS 181	Yamaha	Yamaha	RFO,West Pench
20	MH-31/AS 149	Yamaha Libro	Yamaha Libro	RFO,West Pench
21	MH-31/SF 9253	Yamaha Libro	Yamaha Libro	RFO,West Pench
22	MH-31/CV 43	Rescue Van	Rescue Van	RFO, Mobile Squad
23	MH-31/DZ 0166	Bolero Camper	Bolero Camper	ACF, Antipoaching
24	MH-31/DZ 0160	Grandi	Grandi	ACF, STPF
25	MH-31/DS 5021	EICHAR	EICHAR	RFO, STPF

APPENDIX-XLIII

Settlement of Village Fulzari

Fulzari village is situated in compartment no. 565 of Pench Tiger Reserve in core area in 85.0 ha. Previously Fulzari was a Forest village which later on became revenue village since 1978. Wild Life (Protection) Act 1972 came in existence in the year 1972 with main object to Conserve and Preserve Bio-diversity in a particular area.

As per Maharashtra govt. resolution no. WLP/1099/C.N.191/F1 Mumbai at 17/7/2000 govt. has decided to settle the villages situated inside core zone of National Parks and Sanctuaries. Accordingly it was decided to resettle Fulzari village outside the Pench Tiger Reserve. Proposal was prepared to shift village Fulzari to compartment no 294 P.F. in Deolapar range of Nagpur Forest Division. Then proposal was prepared selecting 85.0 ha. area in the compartment As density of trees in compartment No. 294 was more than 0.4 the proposal was rejected. Then proposal was prepared selecting 85.0 ha. Area in compartment no 278 PF of Khidki village in Deolapar range of Nagpur Forest Division. The proposal included the following details about the land selected.

1. Rehabilitation of Village Fulzari	-	2.16 ha.
2. Area selected for school and other facilities	-	6.11 ha.
3. Area set aside for agricultural of land	-	<u>76.73 ha.</u>
		<u>85.00 ha.</u>

Conservator of Forest, Nagpur Forest division, Nagpur has been declared as Project authority vide no.WLP 10-07/CN-32/F-1 Mantrayala dt. 14.5.2008. CF & FD Pench Tiger Reserve, Nagpur vide his office no. Desk-5/PNP/1018 dt 7/8/2004 submitted proposal of rehabilitation of Fulzari village in compartment 278 Mauza Khidki, Ramtek Tahsil of Nagpur district via CF, Nagpur Division. Nagpur to the Govt. of Maharashtra. Secretary, Revenue and Forest department, Govt. of Maharashtra vide his no. FLD/3607/CR-239/F-10 dt 6/10/2005 submitted the proposal of Rehabilitation of Fulzari village to Ministry of Environment & Forest, New Delhi for approval.

Vide letter no. 3-1/2003 PT dt. 19/3/2008 National Tiger Conservation Authority under MOEF suggested two options in case of rehabilitation of village from National Parks & Sanctuaries as under.

1. Option I - payment of Rs.10.0 Lakhs to head of family who opts to settle on their own outside the Pench Tiger Reserve without involving any rehabilitation / Relocation process by the Forest department.
2. Option II – payment of equal amount cash as per norm to head of family after incurring the expenditure for Rehabilitation outside Pench Tiger Reserve by Forest department.

Recently survey was carried out and 118 families have been identified as per revised guidelines were in unmarried girls above 18 are also considered as separate family. Villagers have given consent for rehabilitation and passed resolution for rehabilitation. They have selected site in Ramtek range. Deputy Conservator of Forest Nagpur Division has commenced procedure for diversion of forest land for rehabilitation.

APPENDIX- XLIV

A SECURITY PLAN FOR PENCH TIGER RESERVE, MAHARASHTRA

Introduction :-

Pench Tiger Reserve, Maharashtra is the 25th Tiger Reserve declared in India.

The key to conservation success in a Tiger Reserve is the level of security enjoyed by the tiger and all other species that inhabit the area. Even if every other factor remains very favorable, lack of security can lead to irrevocable and sudden losses of the biodiversity wealth of the area.

Today, every living wild tiger is presumed to be under threat, irrespective of where it is found. While the degrees of such threat may vary, the fact is any tiger bearing area must be considered as vulnerable to external threats. Species such as the leopard, which are prized in the illegal wildlife trade or other prey such as spotted deer, Sambar and wild boar usually associated with tiger landscapes also add to the threat of poaching.

This plan attempts to provide a road map at recognising and evaluating threats to Pench Tiger Reserve and formulating an appropriate response to such threats.

In Pench Tiger Reserve, Maharashtra the main threat is that of illegal fishing. Second important problem is fire which is due to dry deciduous nature of forests and also revenge fire by the fisherman and disgruntled elements.

The Nature of threats:

The threats to Pench Tiger Reserve, Maharashtra are as follows.

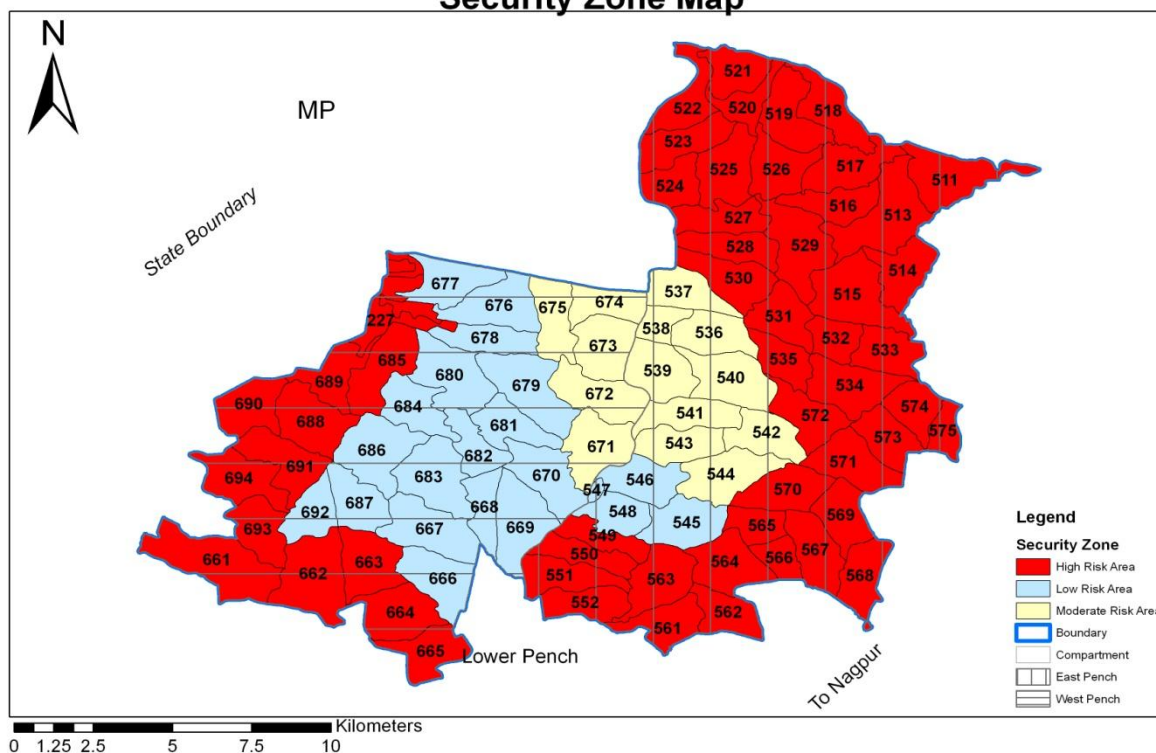
1. Illegal fishing.
2. Poaching
3. Encroachment
4. Fires
5. Electrocutation also acts as a poaching technique.
6. Non Timber Forest Produce collection and gazing.

In addition, many such areas attract large number of visitors who camp inside the forest or in its vicinity. Safety of such visitors, which may include many high profile VVIPs is an added responsibility of the PA Manager.

This Plan will attempt to present a road map to an organised and strategic response to threats arising due to poaching. Many of the issues highlighted here can be used to respond to most other crisis and emergency situations also.

Security Map: Based on the above, a clear picture of the threat perception and vulnerability of various regions in and around the TR is likely to emerge. Based on the evaluation of such threats, the TR has been divided into several regions, each of which has been depicted on the Map with a distinct colour:

Pench Tiger Reserve Maharashtra Security Zone Map



High Risk Areas: These are areas perceived to be under severe threat round the year. These are coded in Red colour and called the Code Red Zone.

Seasonally High Risk Areas: These are areas perceived to be under high threat during specific times of the year, eg. areas where animals take shelter during a flood or which have a local traditional of organized hunts during a particular season. These are coloured in Orange and called the Code Orange Zone. There is no seasonal High Risk area in Pench

Moderate Risk Areas: These are areas perceived to be under moderate threat round the year. These are coloured in Light Brown and called the Code Brown Zone.

Low Risk Areas: These are areas perceived to be under low threat. These are coloured in Light Blue and called the Code Blue Zone.

The threat perception is variable and will keep changing, depending on the situation on the ground. This should necessarily be revisited and revised at least once in every year.

Evaluation of the area

1. The area with higher spatial occupancy of tiger is the present Salama round of East Pench range. In West Pench range, no such area can be separated. Hence whole of West Pench range is important from the point of higher density of Wild animals.
2. There is only one village inside the core zone. It is 'Fulzari' which may be resettled out of Pench Tiger Reserve in the near future.
3. Status of existing roads is as follows.

S.No.	Type of Road	Length		Total	Remark
		East Pench	West Pench		
1	2	3	4	5	6
1	Tar Road	19.50 Km.	-	19.50	
2	Metalled Road	28.50 Km.	18.0 Km.	46.50	
3	Murum Road	86 Km.	125 km	211.00 km	
4	Cart tracks	22.0 km	33 km.	55.0 km	

4. Status of existing Water holes is as follows.

S.No.	Types of water holes	Quantity		Total	Remark
		East Pench	West Pench		
1	2	3	4	5	6
1	Natural and Perennial	16	31	47	No of water holes reduces in summer season and needs to be supplemented with Han pumps to fill the saucer.
2	Natural and Temporary	15	31	46	
3	Circular Cement tanks	9	16	25	
4	Anicuts	6	3	9	
5	Artificial dugout	2	2	4	

5. Status of Watch towers is as follows.

S.No.	Types of water tower	Quantity		Total	Remark
		East Pench	West Pench		
1	2	3	4	5	6
1	Wooden	3	2	5	
2	Iron	3	3	6	
3	Cement Concrete	2	2	4	
	Total	8	7	15	

6. Status of Protection hut and checking gates is as follows.

S.No.	Types of water holes	Quantity		Total	Remark
		East Pench	West Pench		
1	2	3	4	5	6
1	Protection hut	9	7	16	
2	Check nakas	9	5	14	
3	F.R.H.	2	1	3	
4	Inspection hut	-	1	1	

Almost all roads are fair weather roads.

7. Alternate routes connecting key locations are as follows.

- a. Manegaon Tek- Garra- Khursapar road.
- b. Zinzaria – Khapa –Saddle dam road.
- c. Usaripar –Borban-Bhiosen kuti- link road to Salama – Piwarthadi road.
- d. Fulzari - Kiangsarra Road.
- e. Kirangsarra -Chorbahuli Road.
- f. Totladhoh - Ghatpendhari Road .
- g. Ghatpendhari -Seleghat khapa Road.

8. Other alternate routes used by the people involved in illegal fishing are

- a. Borban protection hut to Salama –Piwarthadi road linking foot path.
- b. Nallah beds and small foot paths.

9. The routes mentioned in 7 a to g & 8 a, b offer relatively easier chances of entry /exit to/ from the East Pench range to National Highway no 7. Also the culprits travel through the reservoir by small boats & through nallah beds lifting the boats to approach the reservoir.

10 The information about poaching in PTR for last 5 years is nil.

11. Not a person of hunting community lives within the PTR or in the close vicinity of PTR. No railway route passes through the area. National highway no. 7 touches the proposed buffer and Nagpur–Chhindwara Road is near the outer boundary of buffer.

Security Plan (To be revised per year)

Clear picture of threat perception and Vulnerability of various regions in and around PTR has been shown in Map 1: 50000 scale.

The map has been divided in several regions shown by different colour.

Category	East Pench Range	West Pench Range
High Risk Area(Red Colour)	511, 513 to 535 549 to 552 561 to 575= 43 Comptt	227 PF 661 to 665, 685, 688 to 691 693, 694= 13 Comptt.
Seasonal High Risk Area	-	-
Moderate Risk Area (Light brown colour)	536 to 544 = 9 Comptt	671 to 675= 5 Comptt.
Low Risk Area(Blue Colour)	545 to 548 = 4 Comptt	666 to 670, 676 to 684,686,687,692 = 17 Comptt.

Prevention and Detection

The first target of Tiger Protection Force and other resources will invariably be for the Code Red Areas. However during fire season deployment of force will be planned according to the fire incidence. Tiger Force shall also be deployed in a proactive manner to prevent the offence rather than wait for accidents to happen.

Deployment of Strike Teams :

Pench Tiger Reserve has Tiger Protection Force as Special Strike Force deployed in the field. The deployment should be at locations where the strike force should be able to reach a given area within a reasonable amount of time to take charge of any crisis. Members of a Strike Force will be deployed along the strategic location in the Code Red Zone. This will be in response to a threat perception. In case of Pench Tiger Reserve the main centers for deployment of Strike Force are:

- a. Saddle dam protection hut
- b. Borban protection hut
- c. Piwarthadi naka
- d. Ghatpendhari village.

The Special Tiger Protection Force will be preferably used as a Strike Force and they will Patrol the main places such as Manegaon Tek, Khursapar, Check post, Deolapar. Strike Teams should carry out regular mock drills to test their level of preparedness and their response time. Their visibility will also send out a strong psychological message to any intended poachers etc. The Tiger Protection Force will patrol along National Highway no. 7 along with High risk area of East Pench range.

Planning a Patrol:

Based on the availability of field staff and the Special Tiger Protection Force (STPF), planning for Patrol on foot as well as vehicular Patrol will be carried out. The element of surprise is always very important in the patrol plans.

Foot Patrols are the best and most effective way of establishing command over an area. Foot Patrols must be regularly deployed. Each patrol must have a clear objective, which should be made clear to all staff by the designated Patrol Leader before the beginning of the patrol. Each patrol should be debriefed at the end of the patrol so as to record what was observed during the patrol. Each Range must have Patrolling Plan which should aim to cover the entire area of the Range at least once every fortnight. Care should be taken to ensure that patrols should not fall into the routine of covering only the most convenient routes and those they should not follow a predetermined pattern or route.

A Patrol Party should ideally consist of at least 4 persons with a minimum of two wireless sets. Patrols in an area should generally be a mix of short (1-2 days) and long term patrols (up to 6-7 days). Such patrols comprised of groups of staff drawn from different areas of the TR also bring about bonding and integration amongst the large number of staff in the TR. Long term patrol will be joint patrolling with staff of Pench Tiger Reserve, M.P.

Wherever possible, use of GPS by patrol parties should be encouraged. If plotted on a GIS domain, this can throw up interesting information on gaps in areas covered by patrols.

The use of **Deep Search Metal Detectors** (DSMDs) should be encouraged in areas of West Pench Range.

In areas of Salama round of East Pench Range patrolling by motor boats should also be part of the patrolling plan.

R.F.Os should also join foot patrols and other patrols periodically. This will give them a first hand experience of the area under their charge, as also to give a high degree of motivation to their first line of defense.

What to look for:

Patrols will actively look for signs of human presence which should ideally not be there. They must learn the art of moving slowly and silently in the forest, without advertising signs of their silhouettes against the sky. They must check for human signs around waterholes or other water bodies, salt licks, forest trails, deserted camp sites etc. The party should be equipped with Litmus paper to check for poisoning of water bodies by urea. They should also look for machans on trees and ground hides near waterholes. Also, they should look for machan/hides should be searched for empty cartridges/percussion caps or if any such trails or signs are seen. They must carefully trace and follow the same and try to surprise the infiltrators at their camp. Scan the hill sides and tall trees for any look outs/scouts who may be placed there to keep an eye on any approaching patrol. Surprise and swift action is the key in dealing with such situations. When the number of persons and their firepower is of an order that cannot be handled independently by the patrolling party, additional help should be summoned using the wireless, all the time keeping an eye on the offenders.

Full moon nights are generally known to be favoured by poachers. On and around such dates, special vigil must be mounted, especially around water holes and other water bodies. The Protection labourers on protection huts on elevated places must immediately report even the slightest flicker of light or any unusual tiger call at night.

Patrolling should be intensive during full moon bracket (i.e. 5 days before and after full moon). During this time the patrolling party should look for these particular signs- If there are signs of the animal track being closed or narrowed down using twigs and branches or distractions in the form of cloth/flags being hung on branches, the location should be searched.

If there are series of twin pits (one of 20+ cm diameters and another less than 10 cm diameter but 2-3 feet deep) on bridle paths indicating spring traps being set up and removed, the location should be search thoroughly. Patrolling party should also keep a close watch on kills made by tigers.

Field staff regularly patrolling the forest areas should be aware of the presence and movement patterns of major species such as Tiger and Leopards in such areas. They should actively look for direct and indirect evidences of such species' presence on a regular basis. Any inconsistencies should be immediately investigated.

Water bodies should be examined for signs of poisoning or of attempts of snaring or trapping around it. Sometimes, fishes are killed using chemical additives. This can be detected by signs of small fish floating dead on the surface. Signs of poison such as sulphur, urea and other chemicals ground on rocks near the water are also a pointer to such criminal activity.

Intelligence Gathering :

Intelligence networking is a very important pre-requisite for prevention of crime as well as for follow up after the crime has taken place. Intelligence deals with all things, which should be known in advance for taking actions in the direction of crime prevention. In this process after gathering the information, it is evaluated, analysed and used in the decision making. Advance information is key to success for prevention of crime and this emanates from intelligence.

The key to successful intelligence gathering is by trying to understand what needs to be known and who can provide such information.

- Intelligence/information is gathering from CONTACTS and SOURCES.

- Contacts are those persons who pass on superficial information. This information comes casually if one is careful enough to extrapolate and interpolate. The contacts could be press/media persons, ironsmiths, junk dealers lawyers, doctors, waiter, tea stall owners, village grocers, taxi /auto rickshaw drives, bus conductors, street vendors etc. Making contacts is easier than making sources. Contacts are usually paid on the basis of the information supplied.
- Source is a special kind of contact who possess the inside information on what is going on. Source can be permanent, temporary or casual.
- The best source is the one who is either insider or about to be engaged in the unlawful activities. Through difficult to cultivate, such sources give accurate information about the crime.
- The source could be member of gang itself or could belong to the criminal classes or the underworld. These sources could be, members who live or operate in the fringe of the underworld.
- Permanent long standing informers/sources are paid regularly usually given a permanent code/number for identification. Apart from general information, he should provide specific information, about a crime, on demand. He should be helped during period of his illness /hardship as long as he is faithful. There should be periodic review of the utility of such permanent sources/informers.
- Temporary sources are those who has proved their worth as casual source are willing to cooperate in the future. They should also be paid on regular basis. After few years of testing they could be converted into permanent source.
- Casual sources are most prolific and serve as the recruiting ground for the permanent and temporary sources.
- Secrecy on the identity of the sources should be maintained and his physical safety should be ensured. He should also be warned of the dangerous consequences for betrayal.

The flight distance of animals and birds and their general demeanor in human presence is also an indicator of disturbance. In areas where hunting is common, animals are generally wary and keep a large distance between them and humans. This is also true for areas which are have a more frequent human visitation and such these need to be factored in also. Thus, animals in the relatively undisturbed “Core Zone” of a Protected Area generally have a larger flight distance than those in the “Tourism Zone”. An entire Forest Range must be comprehensively covered once a month by such patrols.

A comprehensive Patrolling Plan will lay out the key areas to be patrolled, routes to be followed, and persons responsible for leading the patrols and those for debriefing them, frequency of such patrols and any other significant facts related to the patrol. A copy will be available at each Range HQ and the Range Officer will be responsible for random deployment of Patrols within his/her Range so that the area is effectively covered. Trans Range Patrols should be organized periodically.

Cattle kill evidences are important signs to be observed. Sometimes, the aggrieved villagers retaliate by poisoning the kill, hence resulting in the poaching of wild animals. Professional poachers also keep an eye on cattle kills for ascertaining presence of carnivores. Where *ex-gratia* schemes are in place, speedy disbursement of such money is the first step towards preventing retaliatory killings. When a tiger or leopard is located at such a kill, it should not be disturbed but allowed to feed on it as otherwise it will only go away to make another kill. Driving away the animal from such a kill only leads to another conflict situation at some other point in time and space.

Certain areas are prone to a particular modus operandi for poaching like snares, traps, use of hunting dogs, poisoning of kills and water holes, electrocution, shooting etc. based on the crime /poaching history. Patrolling parties should be aware of such local variations in poaching techniques and especially look out for these during patrols.

Communication with sources:

- Establishment of an appropriate communication system with informers is extremely important. Direct contract with sources is the thumb rule. When a direct contact is not possible, telephone the source should always talk to the officer directly.

- On direct contact emphasis should be on secrecy and anonymity. The source could meet the officer at his residence under cover of darkness or at a lonely place. Payment to a source should be done directly.
- A system of should be also evolved to meet the source in emergency situations.
- A source should be briefed and debriefed suitably. It would be appropriate if a questionnaire is prepared before each briefing and debriefing.
- A separate file for each source should be maintained for the periodic review.
- Handing over and taking over of sources should be systematized, otherwise they will dry up. Proper introduction of the source to the new officer should take place.

Running an Informer Network:

Careful selection should be done for posting of personnel in the sensitive areas of the PA as these are the persons on whom the mantle of security of the Tiger Reserve vests. They will also inspire confidence in people who want to provide information.

The motivation of persons providing intelligence information could be varied and needs to be treated accordingly. Usually, such persons respond best to contact with one person. This sometimes becomes a challenge in Govt. systems where length of an individual's tenure at a station may be limited. Sometimes the person providing the information chooses to remain anonymous and establishes contact on his own choice randomly. On several occasions such anonymous tip offs can be extremely valuable. Also, persons with a past history of indulging in poaching can also be motivated to turn informers.

In order to receive good information, the following must be ensured:

- The address/Telephone contact numbers on which such information can be provided must be widely publicized and monitored regularly. This should be regularly verified by random checks by senior officers.
- All information received must be screened and acted upon without delay.
- Identity of the informer must be concealed if so desired by him
- Resources MUST be available readily to buy the information /provide reward whenever required.
- A covert watch should be kept on the activities of known poachers and their key accomplices. If found missing from their normal place of residence, an alarm should be raised.
- Liquor vendors in the vicinity should be monitored regularly.
- Outlets for pesticide sales need to be monitored periodically.
- Please note that for undercover operations, disbursement of advances must be generally discouraged as it has the potential to actually encourage poaching in certain situations.
- Individuals and NGOs running undercover operation in and around a TR should be encouraged to keep at least one link in the official enforcement hierarchy broadly informed of their role.

And finally, even the best of intelligence, will be useful only if it brings about appropriate decisions. Thus, information from intelligence sources must be regularly checked, across checked and ultimately acted upon within reasonable time, to have any meaningful impact.

Establishing a Criminal Profile Directory :

In Pench Tiger Reserve records of persons with a history of poaching and /or wildlife trade in their locality must be maintained. This will include details about physical appearance, identification marks/signs, employment, family, key associates, criminal history, and convictions if any pending cases etc. Sudden and long absences of such persons from their normal place of stay must be investigated. Sudden acquisition of movable and immovable assets must also be investigated for possible sources of such transactions.

Photographic dossiers should have information about poachers from both sides of the border who are known to be active in the area.

In every case, the link of old crime to new offenders and old offenders to new crime should be regularly analyzed.

Firearms:

Field Directors and other senior officials of the TR should be able to explain to Field Staff, the conditions that govern the use of the official firearms provided to them. In case the regulations need to be modified, the matter may be taken up with the respective Forest Department Headquarters and the State Home department under intimation to the National Tiger Conservation Authority. Relevant GR and guidelines related to use of firearms and immunity to staff related to use of firearms must be given to each staff using firearms.

In the forest, cartridges are perishable commodities as they are exposed to the elements of nature all the time. As such, they must not be stored for long but should be fired occasionally to test the working conditions of the guns. All weapons in the field must be well oiled and cleaned regularly. Gun oil and cleaning rods etc. should be made available at all Patrolling Camps. Senior officials will make it a point to check the general state of weapons with their field staff while on tour.

All field staff should be made to undergo firing practice at least once a year at a regular firing range. Such an exercise can be easily carried out with support of the local police of Army unit who will also be happy to spar the services of their armour to examine the general state of being of the weaponry.

All weapons should also be test fired at least once or twice a year.

All official firearms must be issued to well recognize entities, i.e. at any point of time it should be possible to ascertain the person who is in custody of a particular weapon. Cartridges issued should be accounted for and empties returned to store.

A single firearm must never be carried in the field as it is liable to be targeted by miscreants. Guns are best sent out at least in pairs. While walking, guns should be carried with the barrel pointing skywards or down and NEVER at chest level pointing ahead or backwards. A gun is not a walking stick and should not be used as one, as this could lead to the butt being damaged or dirt, water etc. entering the barrel and damaging it. In humid areas, it is advisable to plug the mouth of the barrel with a piece of cotton or cloth.

Wireless communication:

A list of wireless stations which have access to dedicated power supply and are working round the clock is to be maintained. Similarly, a list of other wireless stations and their working hours needs to be maintained. Call signs, preferably in code, should be given to key officials of the TR.

All wireless stations should convey a report, preferably twice a day at a predetermined interval, about activities in their area of command to a designated Control Room. This could include information about.

- Patrols conducted and Areas covered on that date.
- Any signs of presence or movement of suspected poachers etc.
- Sighting or signs of wildlife such as tigers etc.
- General welfare to staff.

Even where there is nothing significant to report, the station should contact the Control Room with a Nothing to Report (NTR) message. If a station is not responding for a period of time, this should trigger a visit to the site to find about the welfare of local staff and possible reasons for the break in communications.

Use of modern gadgets like mobile phones may be explored for the purpose of communication. However, it is important that all such communication must be formally recorded /logged.

Response:

Despite best efforts, some times mortalities of important wildlife species are going to happen in the field. In many cases, this may be due to natural causes while in some, poaching for profit or human wildlife conflict may be the driving force.

The first step in such a situation is to ensure that there is no attempt to hide facts and the full details of the incident is brought out. If a cover up is attempted. It will only embolden poachers and also subordinate field staff who may fear to report such cases for fear of disciplinary action.

Flow chart for Action when a Wildlife Crime/Mortality is detected:

- Inform the concerned senior officer immediately.
- Reach the spot at the earliest possible time with basic tools & forensic Kit.
- Cordon off the area with the help of rope or tape
- To facilitate collection of evidence, divide the crime area in to grids or radial circles.
- Note down every bit of information on the spot in a notebook or in a recording device. Please note that the weakest ink is still stronger than the best of memories, which can fade with time.
- Do not disturb/touch/ manipulate the evidences unless photographs have been taken and sketches prepared. Take photographs from different angles. Try to make a video recording of the crime scene.
- Record foot prints of animals, human beings, and tyre/ wheel marks of vehicle if any. Plaster casts may also be prepared of these.
- Search and collect all possible evidences carefully in original condition with preservatives if needed. Search must be carried out at the eye level, ground and above eye level also. Properly pack and label the physical evidences.
- Make a note of names, addresses of witnesses and record their statements.
- Details of the crime scene like location, time, date, weather condition etc. may be recorded.
- Collect evidences from scene of crime, carcass of animals, body parts, and suspects on the spot.
- Surrounding area of the spot must be thoroughly searched.
- Route/escape followed by the suspect(s) must be checked for evidence.
- After recording evidences from carcass for wounds, bullet injuries, symptoms of poisoning, seizure and labeling, the body should be sent for post-mortem.

A security Plan is worth, only if it is implemented in letter and more importantly in spirit. The key is to carry out regular security audits by senior officials, test preparedness and response times regularly so that in times of a real crisis, the entire system responds like a well oiled machine. As is often said in the army, “Sweat hard in peace, so that you bleed less in war.”

4. List of People possessing fire arms in Buffer Zone of East Pench Range

S.No.	Name of Village	Name of Persons	Type of Weapon	Licence No
1	2	3	4	5
1	Zinzaria	Shamim Mohommad Khadya Mohinuddin Ansari, Zinzaria(Muslim)	Bharmar Riffle	22/86
2	Ambazari	Madhukar Ramchandra Desai, Ambazari (Kunbi Hindu)	-do-	201/63
3	Ambazari	Hiraman Z. Raut, Ambazari (Kunbi)	-do-	5/88
4	Ambazari	Lahanu. Z. Raut	-do-	7/70
5	Patharai	Bhuru G. Dhurve, Patharai (Gond)	-do-	6/88
6	Patharai	Rama H. Maraskolhe, Patharai (Gond)	-do-	31/86
7	Dahoda	Hiralal. K. Wasnik Dahoda (Mandi Tola)	-do-	133/73
8	Dahoda	Natthu U. Chafale, Dahoda (Kunbi)	-do-	7/73
9	Pipariya	Mahadeo B. Dongre, Pipariya (Bouddha)	-do-	39/72

10	Paoni	Khatakchand. F. Rajpal Paoni (sindhi)	-do-	2/82
11	Khapa	Ramchand .C.Kodwate	-do-	1/87
12	Deolapar	Ratan Khandate, Deolapar (Gond)	-do-	2/75

West Pench Range

S.No	Name of Village	Name of Person	Type of Weapon
1	Banera	Shri. Shripat D. Shandre	Bharmar Riffle
2	Narhar	Shri Bhayalal M. Medhi	-do-
3	Narhar	Shri Godharu. T.Madavi	-do-
4	Narhar	Shri. Bajirao T. Invate	-do-
5	Chagaon	Shri Ramji.S. Bagmare	-do-
6	Aawaleghat	Shri. Daulat. N. Dhore	-do-
7	Ghatpendari	Shri Maniram.R. Admachi	-do-
8	Ghatpendari	Shri Pilaji.G.Uikey	-do-
9	Ghatpendari	Shri. Tukadu D.Admachi	-do-
10	Navegaon Khari	Shri Bharat B.Raut	-do-

2. Crops : Rice Tuwar, Jawar, Gram, Wheat, Orange Information not available about Area in which these Crops are taken

3. Name of Persons using Electric current for protection of Crop--- Not available

4. Water holes in Buffer Zone.

Particulars	Forest Development Corporation Nagpur Project Division (Comptt.No)	Parseoni Range	Delopar Range	Paoni Range	Khapa
Water holes	588	Moudi	Pench River	Nil	1.Palai Tank
	600	Ambazari			2. Badwaik Tank
	597	Ambazari			3.Ziri Nala
	625 (2 No)	Badkhori			4. Dahoda Tank
	657	Dhawalpur			5. Pench River
	656 (2 No.)	Hattikhada			
	655/656-1	Hattikhada			
	243/644-(2 Nos.)	Badkhori/ Salaighat			
	660	Dhawalpur			
	698 (2 Nos)	Ghatkukda			
	700 (2 Nos)	Nagalwadi			
	703	Sonpur			
	702	Sonpur			
Patrolling Agency	ACF & RFO's of Nagpur Project Division FDCM	RFO Parseoni & Field Staff	RFO Deolapar & Field Staff	RFO Paoni & Field Staff	RFO Khapa & Field Staff

5. Name of Police Officers & Contact Nos.

DSP (Rural) Shri.Shaluke, R-(0712) 2562139, 2566662, M-7798887811

Deolapar	Parseoni	Ramtek	Nagpur
Shri.D.C.Gautam(PSI) O-(07114)-277422 277431 M- 9422890224	1. Shri.R.L.Tayade (PSI) O-(07102)-225123 M-9823015900 2. Shri. Mahajan M- 9850391519 3. Shri.B.D.Patil (API) M-9975266016	Shri Adewar (SDO) O-(07114)256423	CRO Control (0712) 2560200 2566650

6. Name of Tahsildar

Deolapar	Parseoni	Ramtek	Nagpur
Mrs. Kaware O-(07114)-255124	Shri Shivraj Padole O- (07102)225139 M-9422134470	Shri Patil (SDO) O- (07114)255302 M-9422832151	

7. Name of Magistrates of Court

Parseoni	Ramtek
Civil Judge & 1 st Class Magistrate Shri M.R.A.Shaikh M- 9421618599	Shri Chimankar 1 st Class Magistrate M-8446235236

8. Irrigation Department

Ramtek
Shri . Urakede, Branch Engineer Pench, Head Quarter Ramtek- Mobile-9822574974 Shri. Kanode, Engg. Totladoh Mob. 9423634732

9. Range Forest Officer's in Buffer Zone & Contact Nos.

Deolapar	Paoni	Parseoni	Saleghat	Nagalwadi
Shri. D. N. Tonde 9209564521	Mr. Sheikh 9850364987			

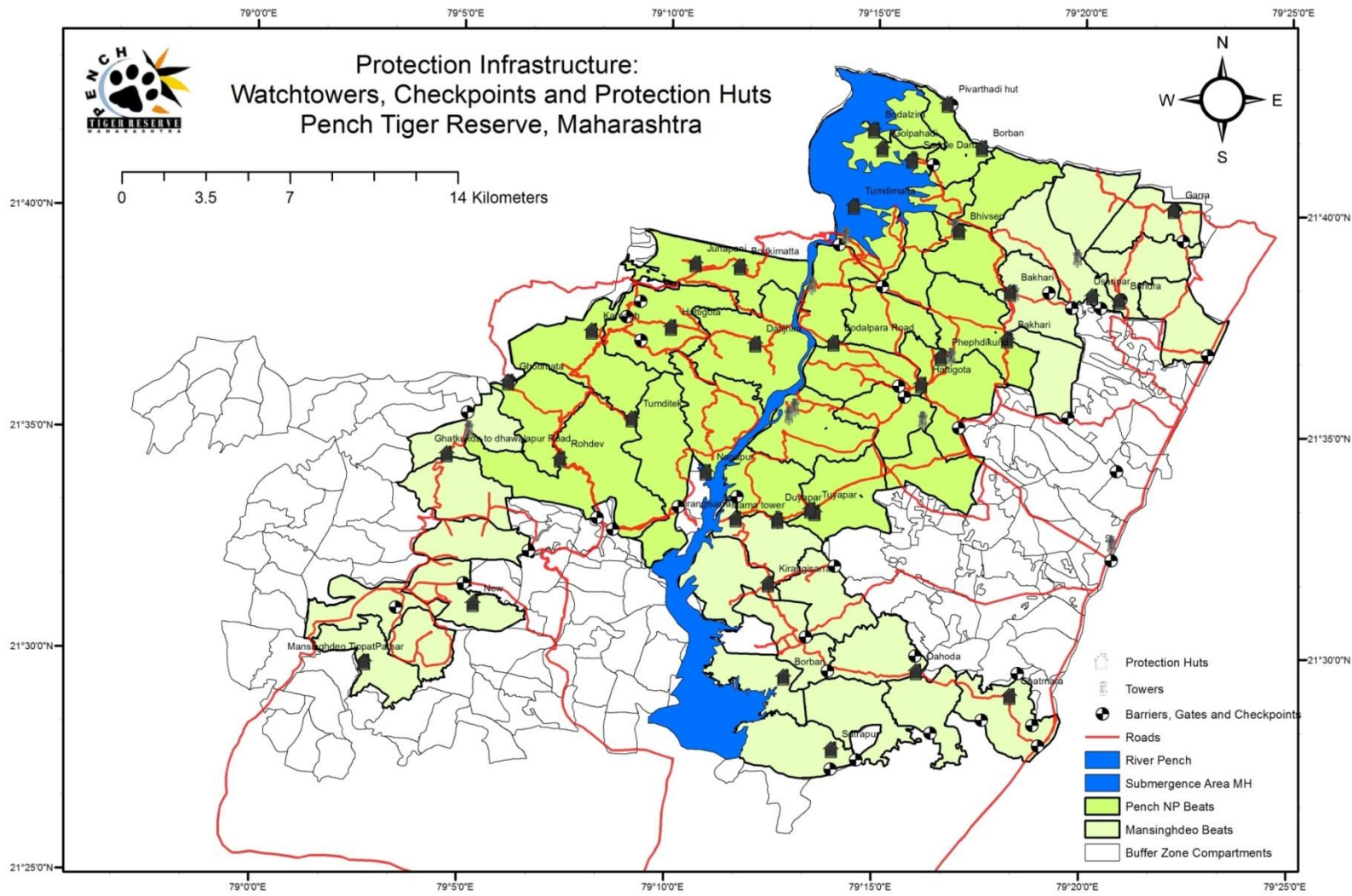
10. Contact No of Hospitals And Ambulance

Deolapar	Parseoni
1. Dr.Sanjay Meshram M-9049608961 2. Dr.Anurag Brijpuriya M-9422122729 3. Dr. Zuber Ahmed M- 9850423112 Govt. Hospital - 07114-287427 Ambulance - 07114-689439	

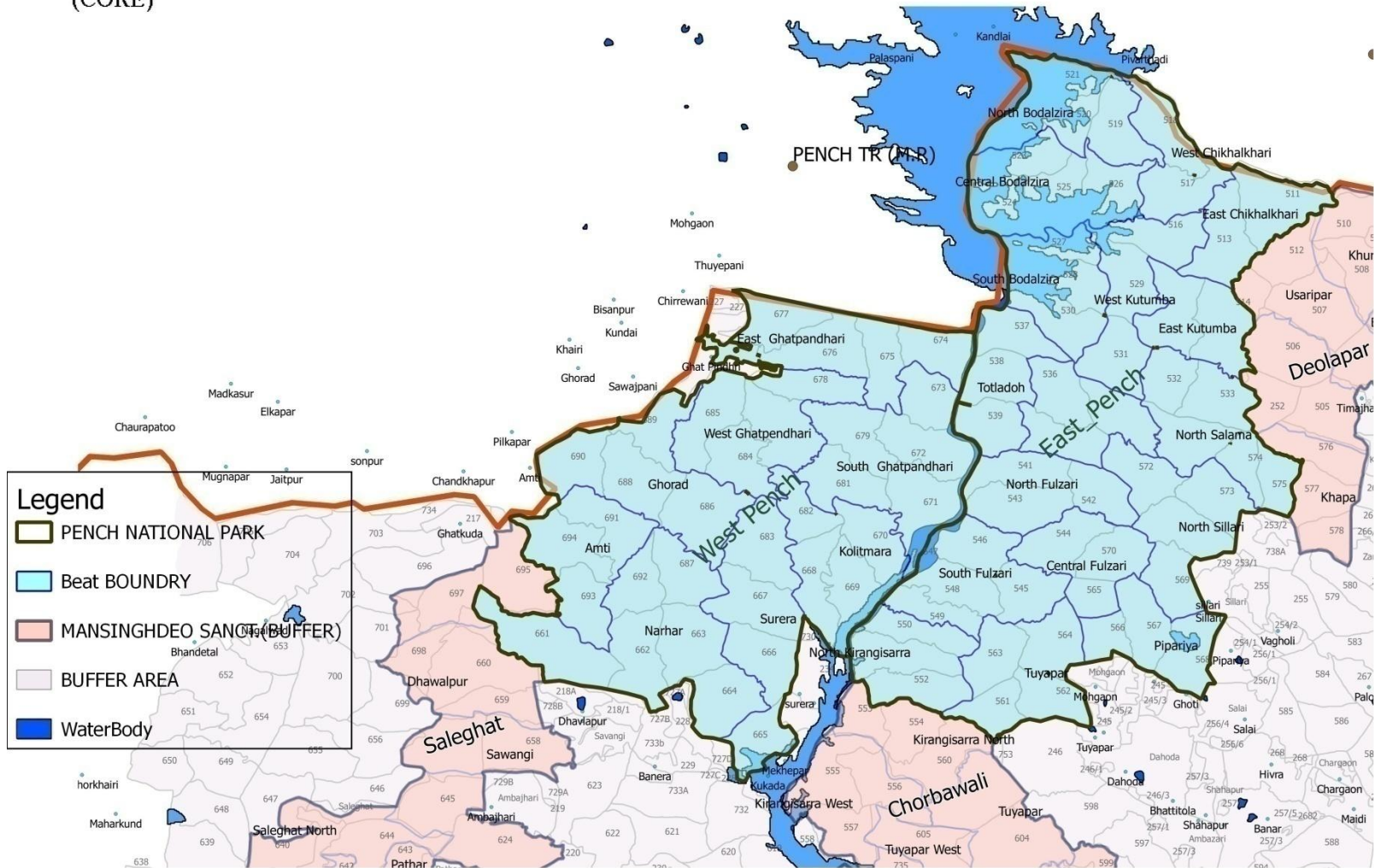
APPENDIX –XLV

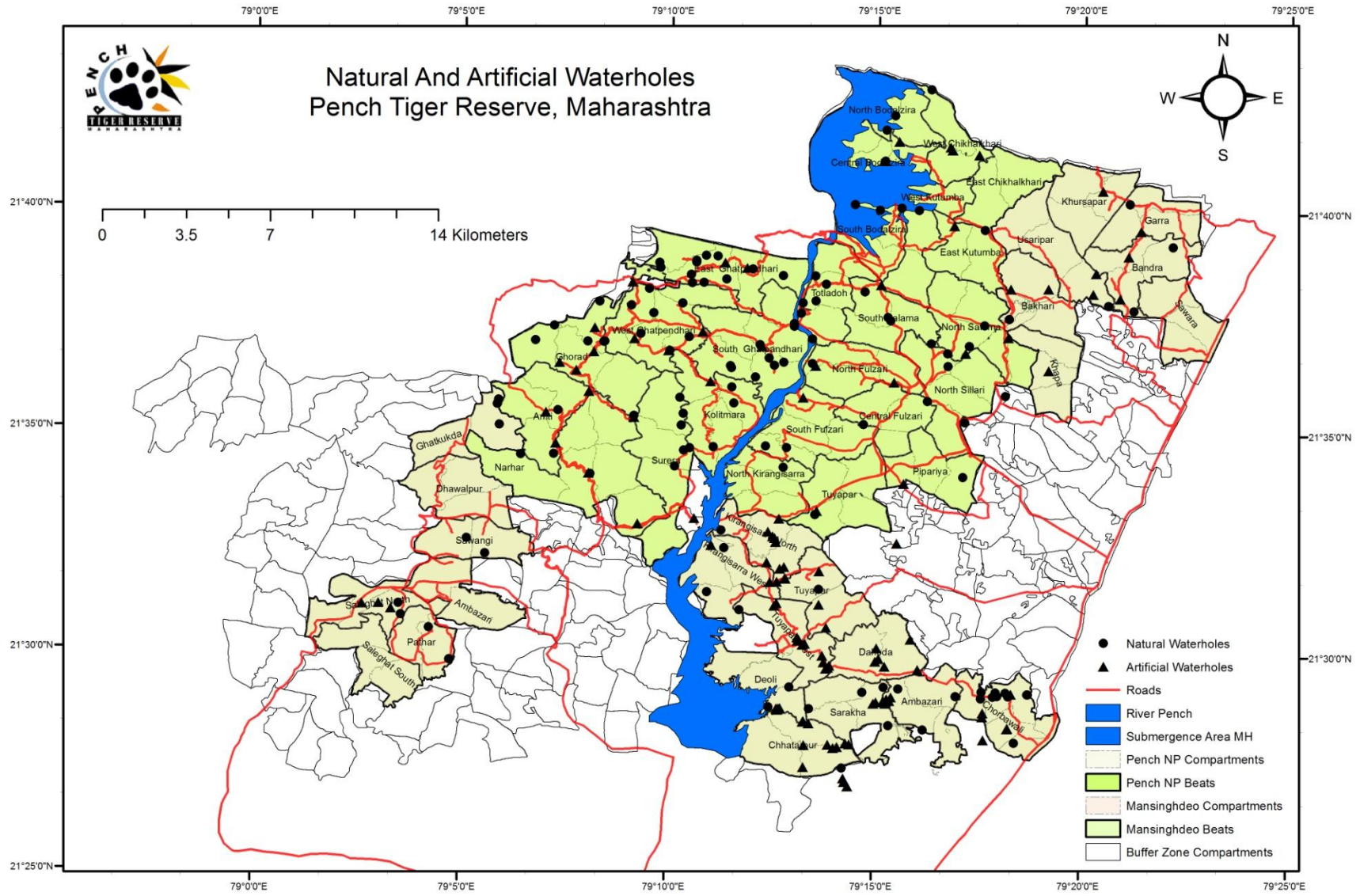
Activity Budget of Core for the year 2013-14 to 2022-23(Rs. In Lakh)

Sr. No.	Particulars of Works	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	Total
1	Protection vehicle purchase 1) Vehicle for STPF a) Pick-up - 3 Nos. purchase & maintenance	36	3	3.5	4.5	5	5.5	6	6.5	7	7.5	84.5
	(b) 4 Wheeler for RFOs - 3 nos	18	1.5	1.75	2	2.25	2.5	2.75	3	3.5	4	41.25
	Vehicles for field staff 4 wheeler DFO - 1, ACF - 02, RFO – 03	12	13	14	4	4.5	5	5.5	6	7	8	79
	Vehicles for Field Director	8	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	22.25
2	Check Naka and maintenance	6	6	3	3.5	4	4.5	5	5.5	6	6.5	50
3	Protection labourers	50	55	60	65	70	75	80	85	90	95	725
4	Tranquilising equipments/chemicals	2	0.5	0.5	2.5	0.5	0.5	4	1	2	2	15.5
5	Compensation	1	1	2	2	2	2	2	3	3	4	22
6	Building maintenance	6	20	10	12	12	14	14	14	14	16	132
7	Habitat/Meadow	5	5	8	8	10	10	12	12	12	14	96
8	Wildlife research	10	10	10	15	15	15	20	20	20	25	160
9	Estimation /data collection	6	3	30	10	30	12	12	12	50	15	180
10	Maintenance of Water holes	6	6	6	8	8	8	10	10	12	12	86
11	Water source creation	15	15	15	15	15	15	15	15	15	15	150
12	Road maintenance	25	30	35	40	45	50	55	60	65	70	475
13	Wireless maintenance	8	8	10	12	14	14	16	16	18	20	136
14	Anti fishing squad	6	6.5	7	7.5	8	8.5	9	10	10	11	83.5
15	Purchase of Boats & maintenance	20	8	8.5	9	9.5	25	10	11	12	13	126
16	Fire Protection	30	33	37	40	44	47	50	55	60	65	461
17	Rehabilitation of fulzari	20	1160	0	0	0	0	0	0	0	0	1180
18	Equipment to field staff and STPF	10	10	17	20	22	25	30	30	40	50	254
19	Eco tourism – equipment for guides	2	2	2	3	3	3	4	4	4	5	32
20	Antipoaching camps and check naka creation	5	5	10	10	10	5	5	5	5	5	65
21	Visit to other Pas by field staff	2	2	2	3	3	3	4	4	5	5	33
22	Training of Staff	5	5	7	9	9	10	11	12	13	14	95
23	Project Allowance	30	35	40	45	50	55	60	65	70	75	525
	Total	344	1444	340	351	397	416	444	467	546	560	5309



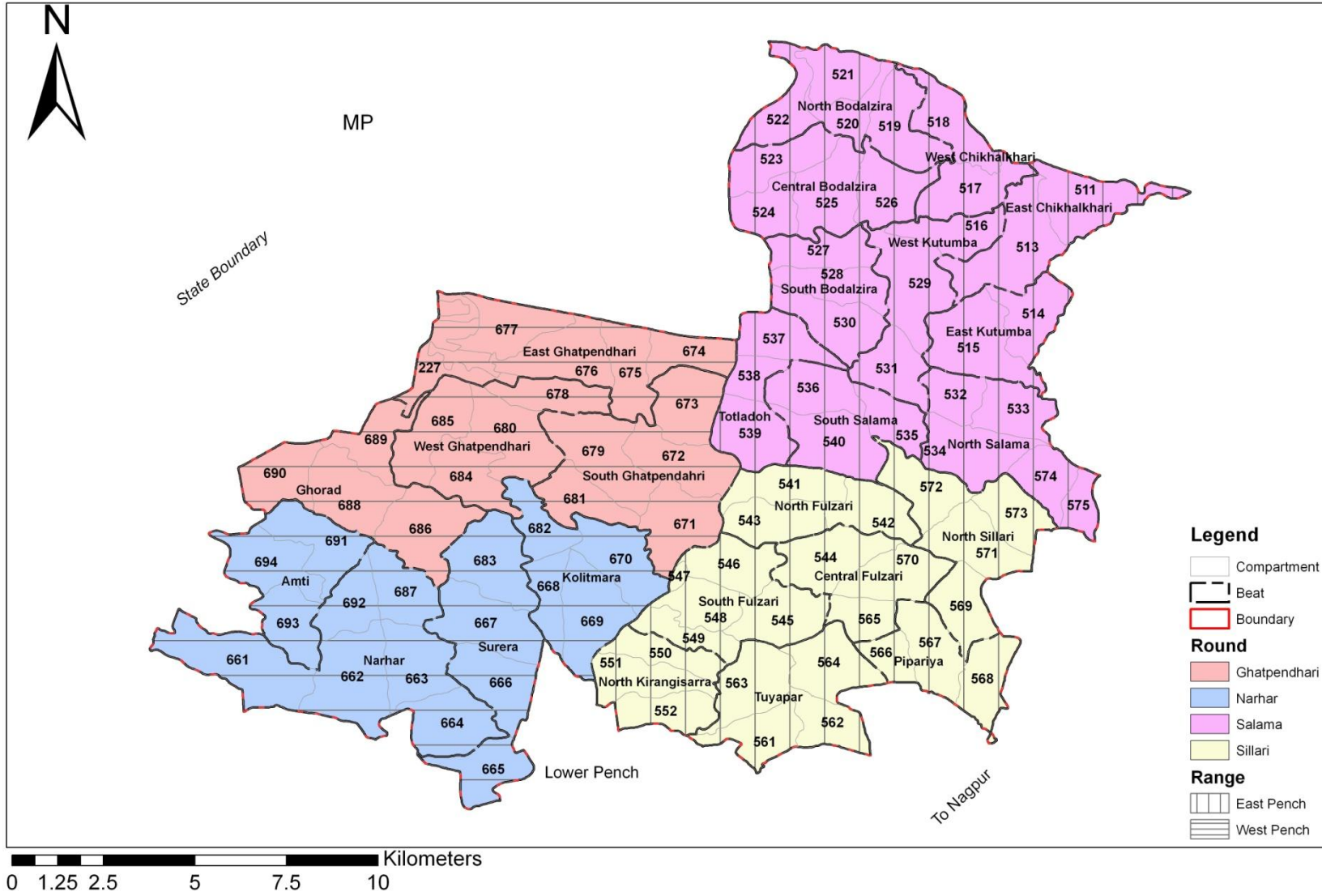
ADMINISTRATIVE MAP OF PENCH TIGER RESERVE
(CORE)



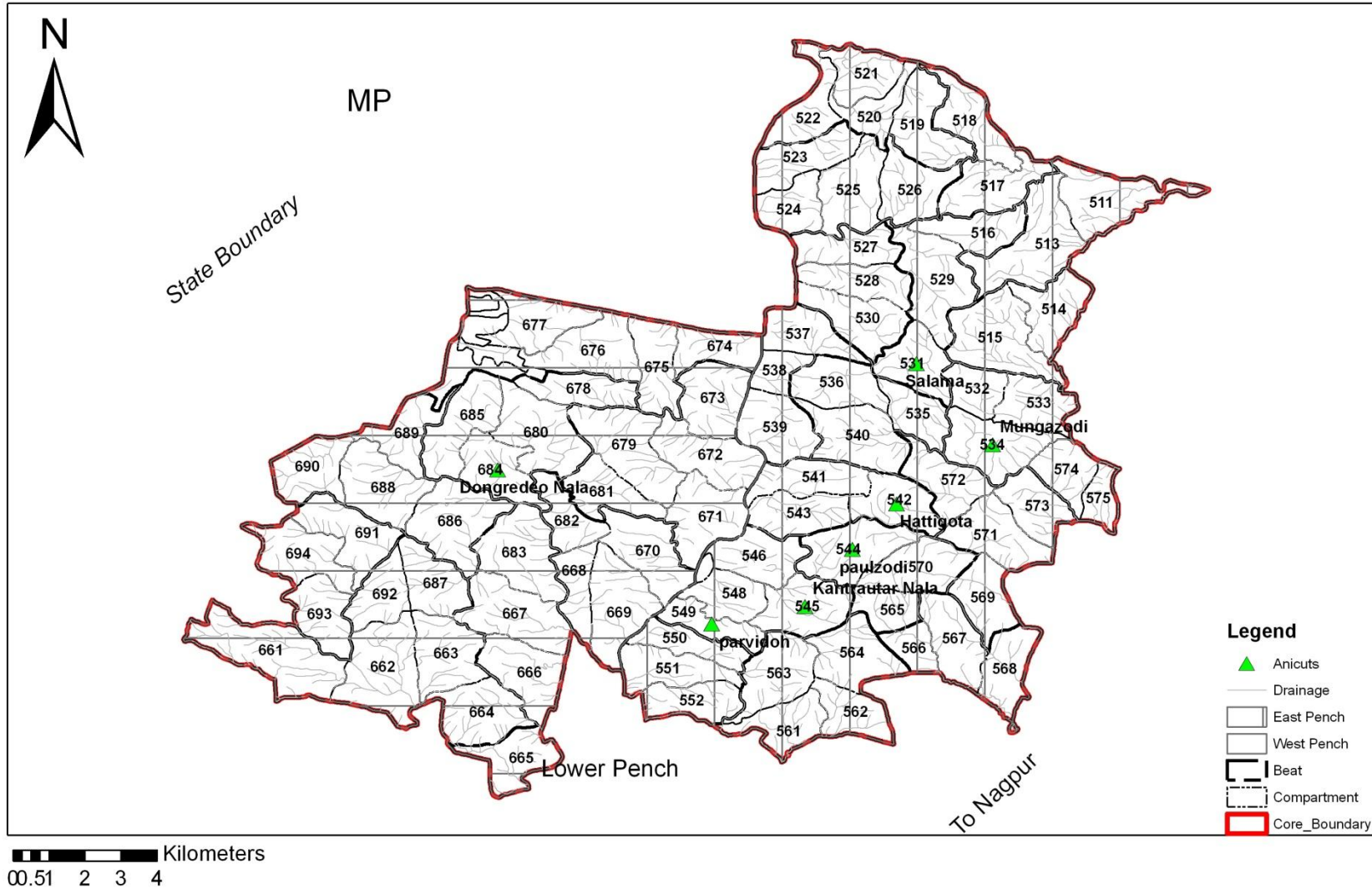


MAP NO. 1

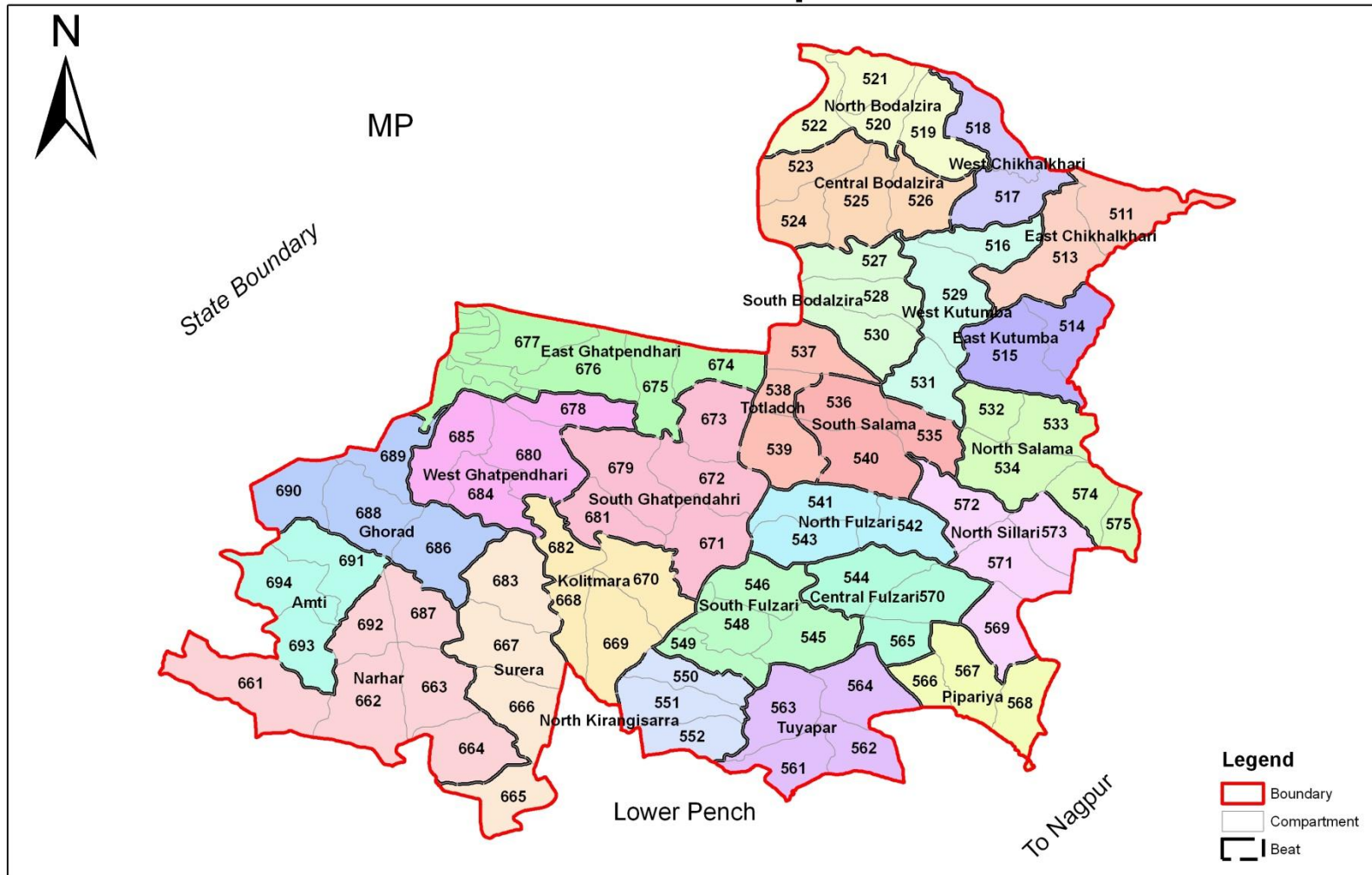
Pench Tiger Reserve Maharashtra Administrative Boundaries



Pench Tiger Reserve Maharashtra Anicuts

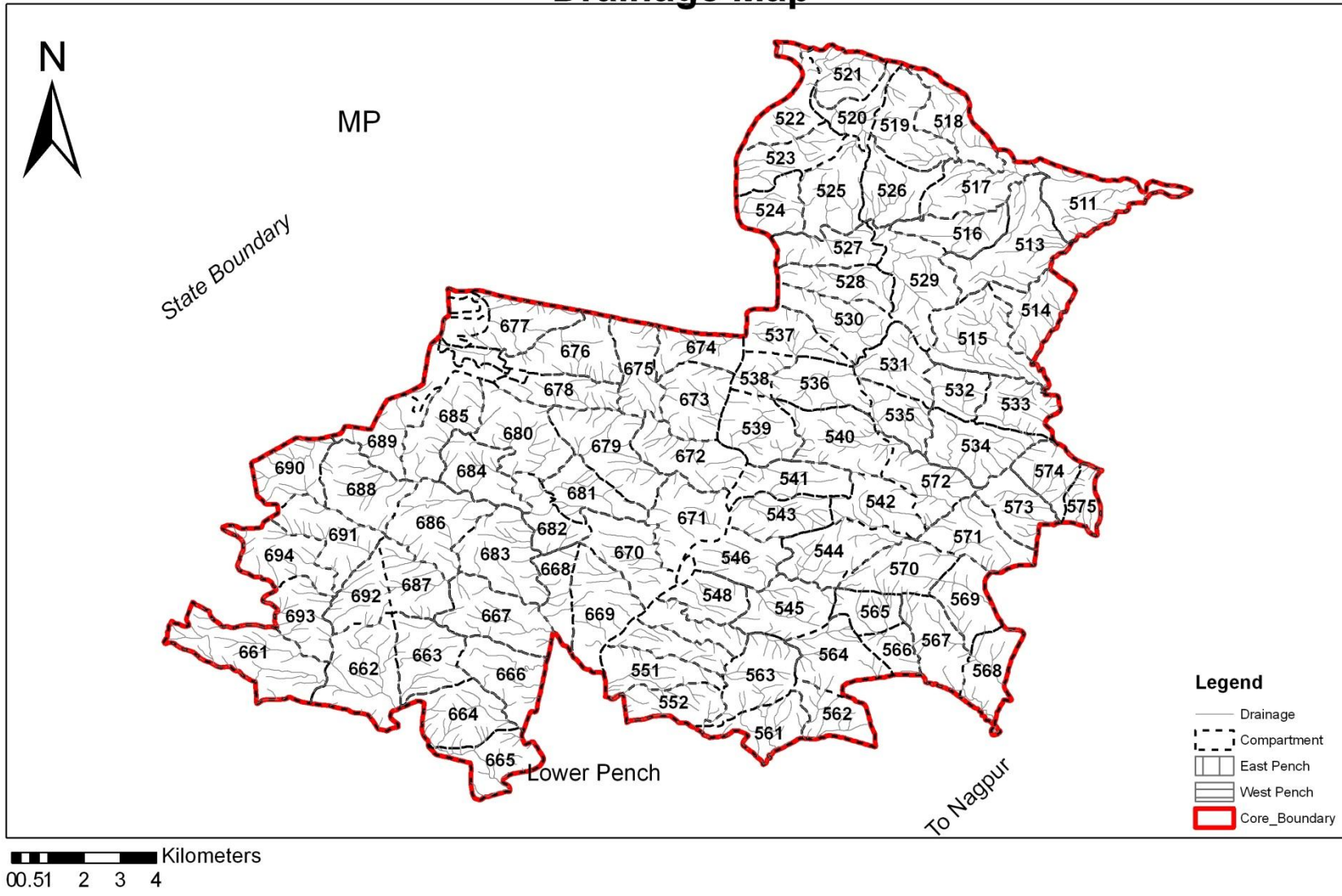


Pench Tiger Reserve Maharashtra Beat Map

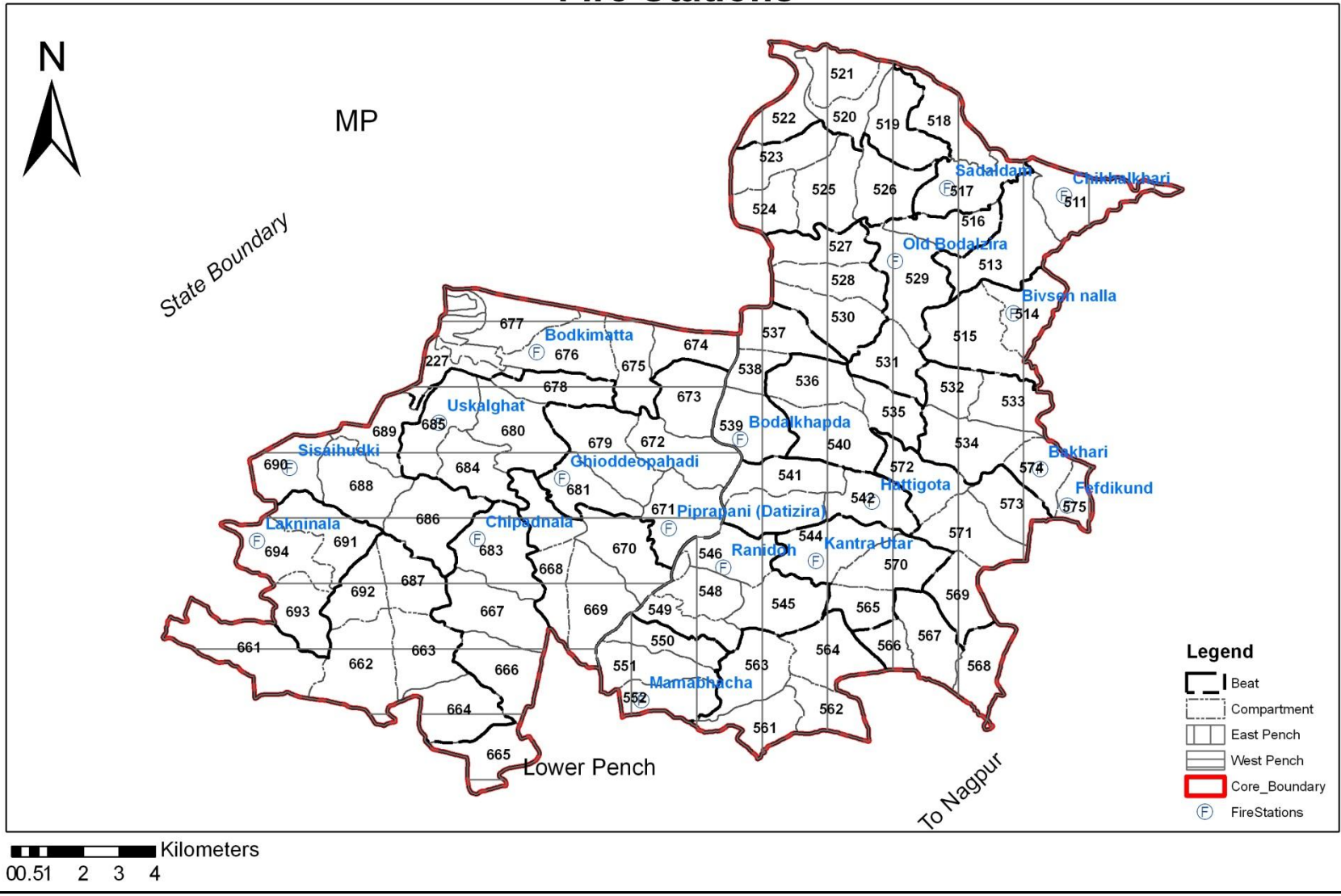


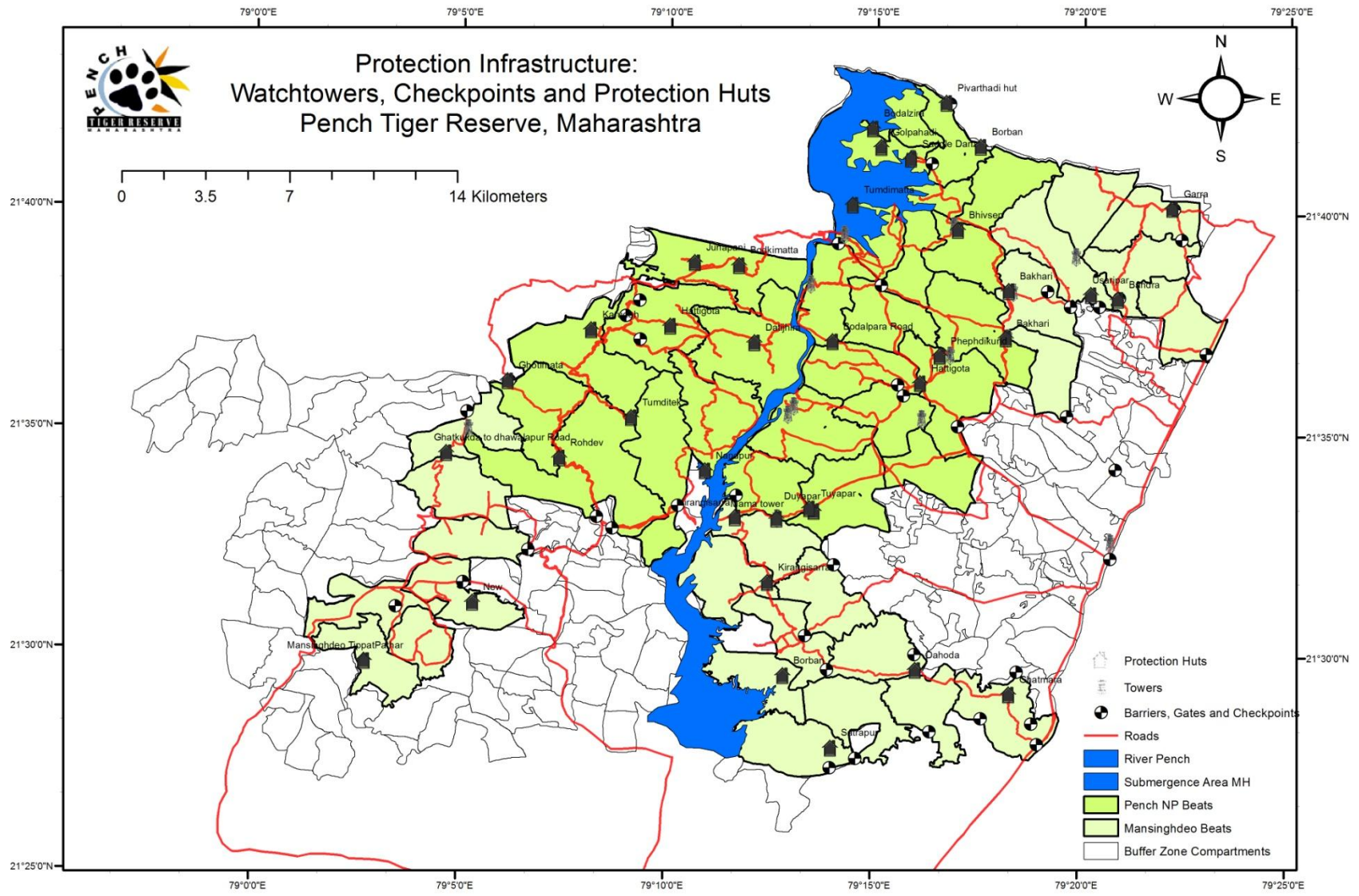
0 1.25 2.5 5 7.5 10 Kilometers

Pench Tiger Reserve Maharashtra Drainage Map

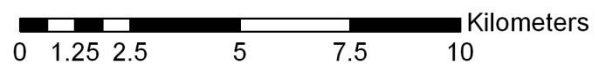
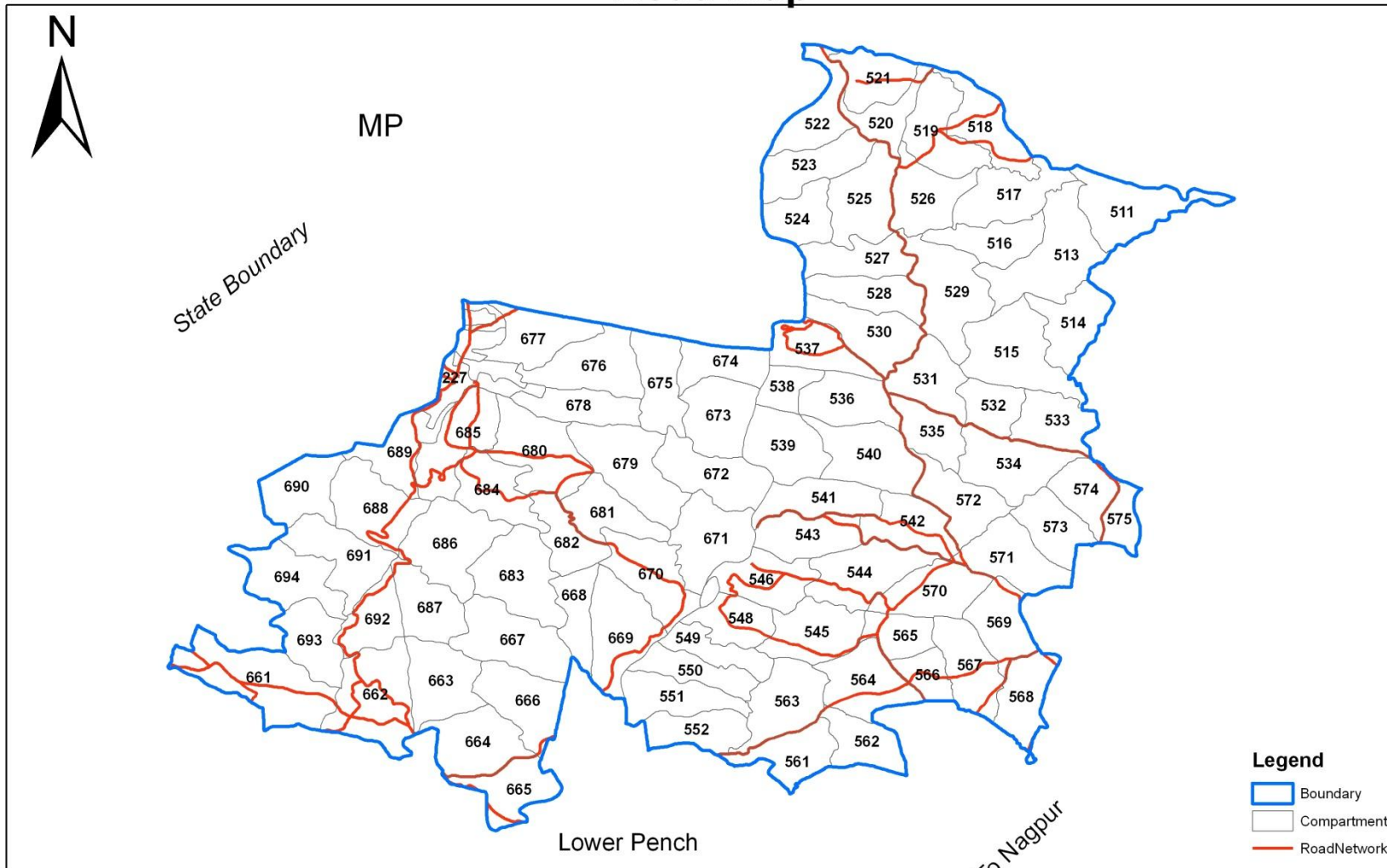


Pench Tiger Reserve Maharashtra Fire Stations

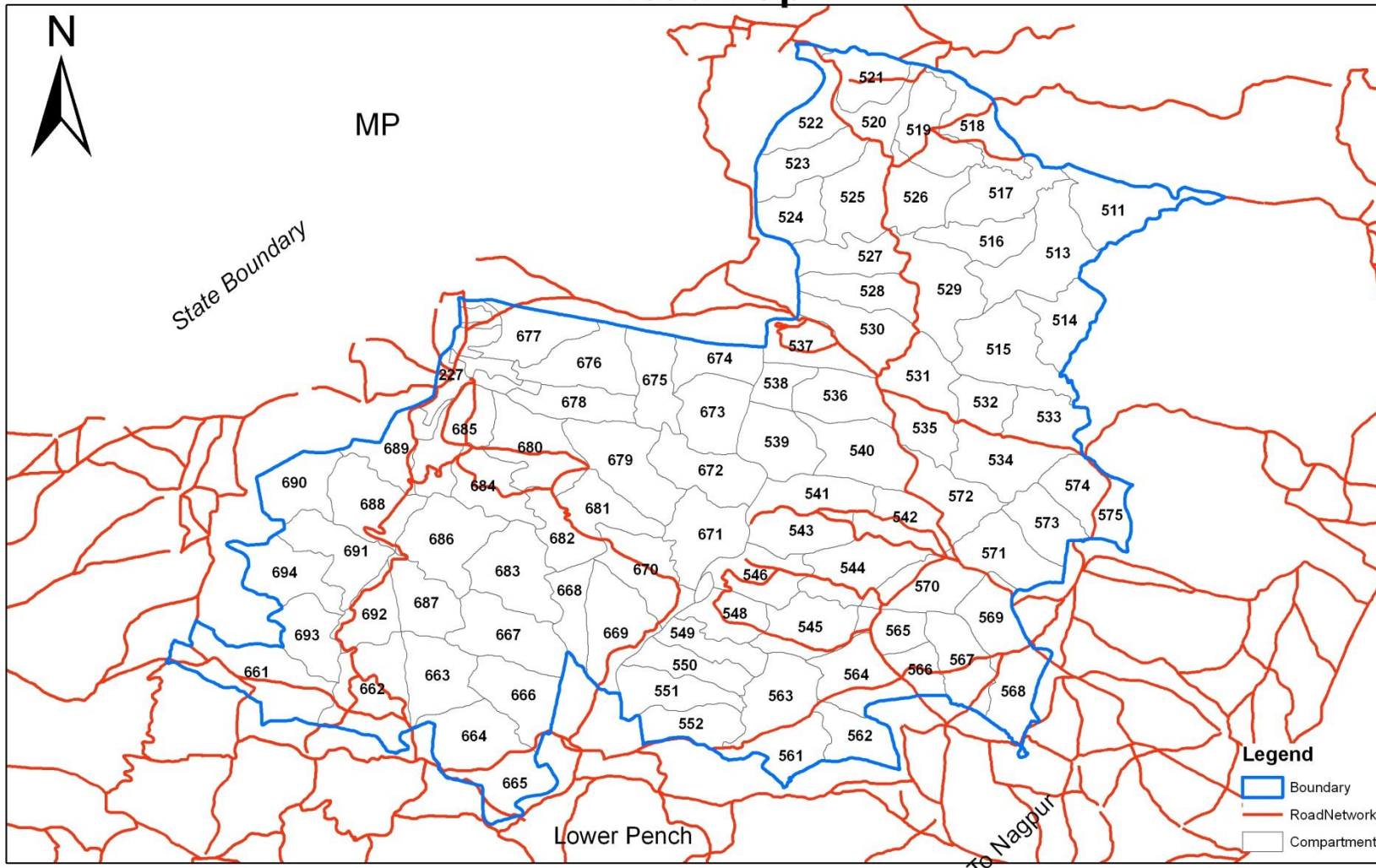




Pench Tiger Reserve Maharashtra Road Map

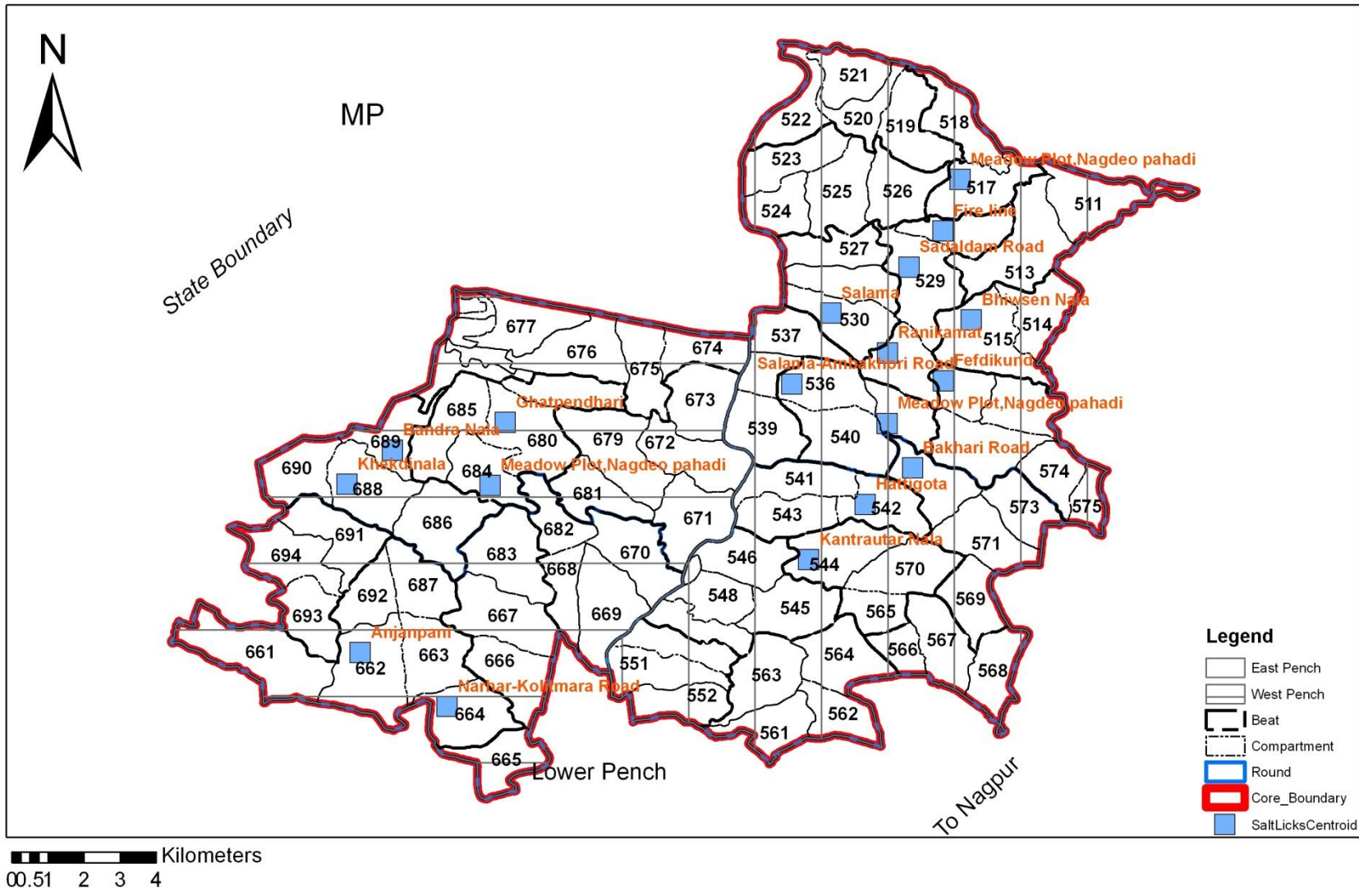


Pench Tiger Reserve Maharashtra Road Map

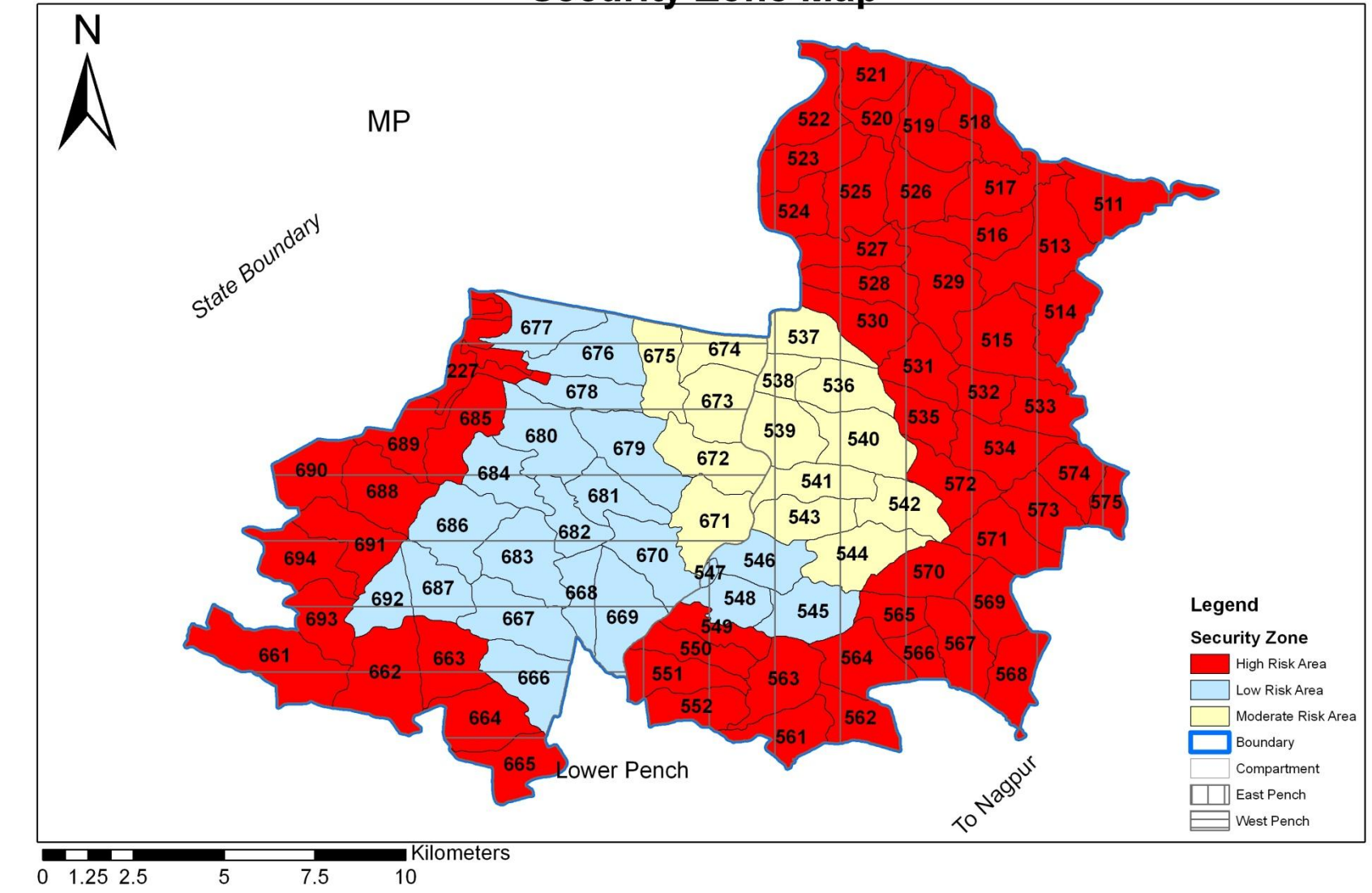


0 1.25 2.5 5 7.5 10 Kilometers

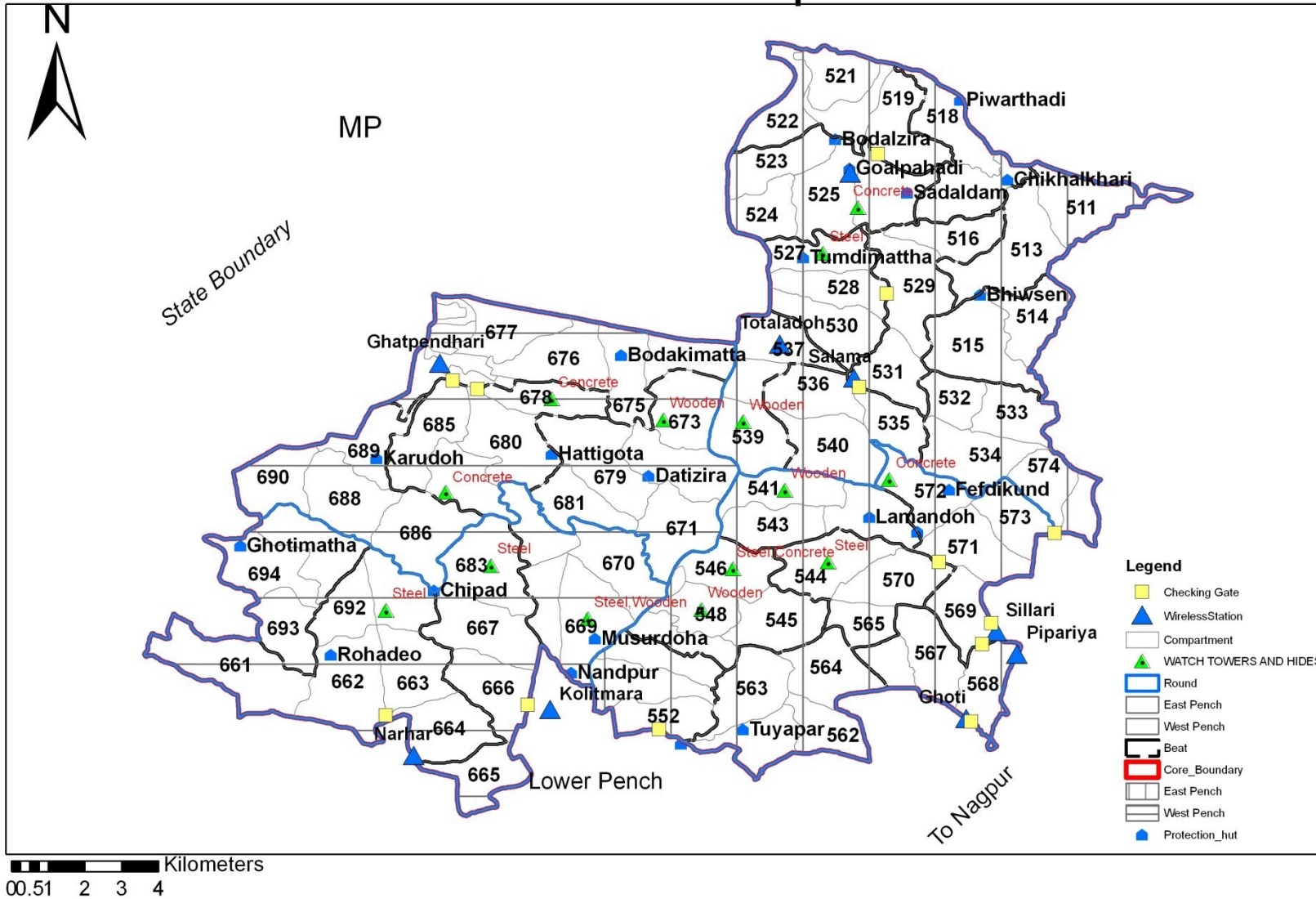
Pench Tiger Reserve Maharashtra SALT LICKS



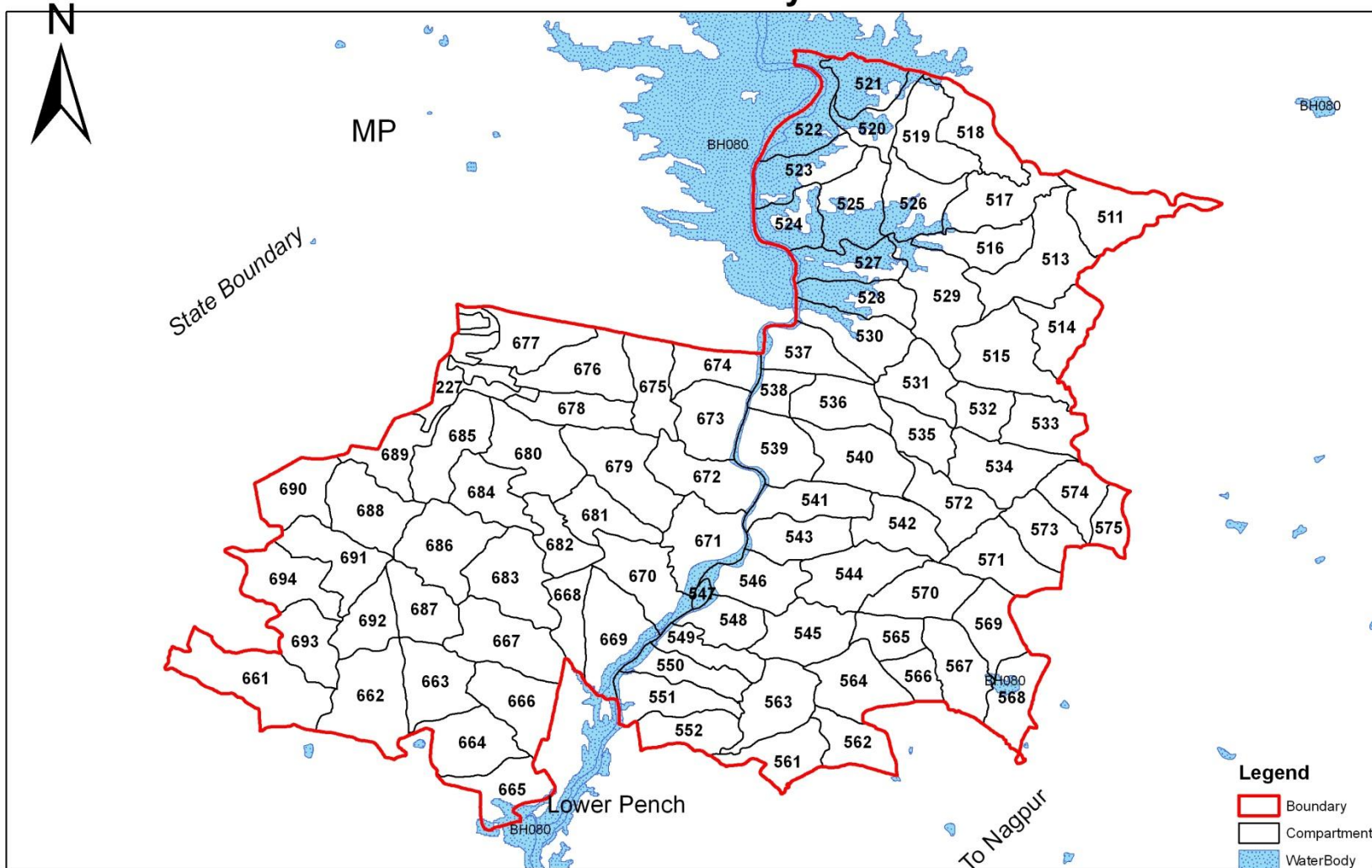
Pench Tiger Reserve Maharashtra Security Zone Map



Pench Tiger Reserve Maharashtra Protection Map



Pench Tiger Reserve Maharashtra Water Body



0 1.5 3 6 9 12 Kilometers

Legend
 Boundary
 Compartment
 WaterBody

Pench Tiger Reserve Maharashtra Water Hole And Nala Map

