

CENTRE FOR BEAR REHABILITATION AND CONSERVATION (CBRC)

Annual Report: 2020-21



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1. Report of the Officer-in-charge

This is the seventeenth year of CBRC being operational in Pakke Tiger Reserve, Arunachal Pradesh since its establishment in 2004. The project has directly contributed to conservation of Asiatic black bears in the landscape by contributing to the rehabilitation and release of almost all the orphaned black bear cubs admitted to the centre.

The three of the four bears at the centre under lifetime care were brought as young 6 to 11-month-old bear cubs with the objective of rehabilitating them back to the wild. When the bear rehabilitation protocol was modified in 2004 and a new methodology was instituted, these bears were not considered young enough to be subjected to this revised method. As a result, they have ended up in lifetime care at CBRC. The fourth bear was a bear that had to be captured and put under lifetime care as it was often raiding the store and the kitchen of the forest campus.

The bear cubs undergoing rehabilitation at the release site are managed by a set of keepers supervised by a biologist. While cubs are hand-raised with a suitable milk formula for up to 5 months of age, adults under lifetime care are fed on concentrate mix supplemented with fruits, vegetables and tubers collected from the forest. The concentrate mixture comprises a porridge of cereal and pulse cemented together with jaggery and broken eggs. Nutritional supplements are added whenever the need arises.

The infrastructure at the centre is old and was built in 2004: both the administrative office (field office) as well as the animal shelter. Weathering had affected the foundation of the shelters and the main administrative office area. With the support of the Arunachal Forest Department and other corporate donors, a major renovation work was initiated and completed in the reporting period (detailed under developmental works).

2. History of the Rescue Centre

Pakke Tiger Reserve

Arunachal Pradesh is the largest state in the north-eastern region of India and forms 2.5% of the total geographical area of the country, 15.76% of the Indian Himalayan region and 43.62% of the biological hotspot of Eastern Himalaya. It is surrounded on three sides by international borders: Bhutan to the west, China to the north and Myanmar to the east. The bulk of the land area (around 64%) is still covered by forests and grasslands, thus making forestry as the most important land use. However, despite this vast forest cover, the state is struggling to retain its forest cover owing to increasing demand for development activities. In the last three decades, population growth, agricultural practices (*jhuming*) and the development of towns have led to rapid fragmentation and degradation of forest and forest resources of the state. Many mammalian and avian species are threatened due to habitat loss and hunting.

The Pakke Tiger Reserve, once known as Pakhui Wildlife Sanctuary (260 55' to 270 15' E; 920 35' to 930 10' N) is under the administrative control of the Seijosa Wildlife Division. In 1977 the area was demarcated as a wildlife sanctuary, renamed to Pakke Wildlife Sanctuary Division in 2001 and declared as a tiger reserve in 2002. It covers an area of 861.95 km², which is composed of 20% of the East Kameng district of Arunachal Pradesh. The Tiger Reserve is surrounded by contiguous protected area from all sides: Nameri National Park, Assam to south

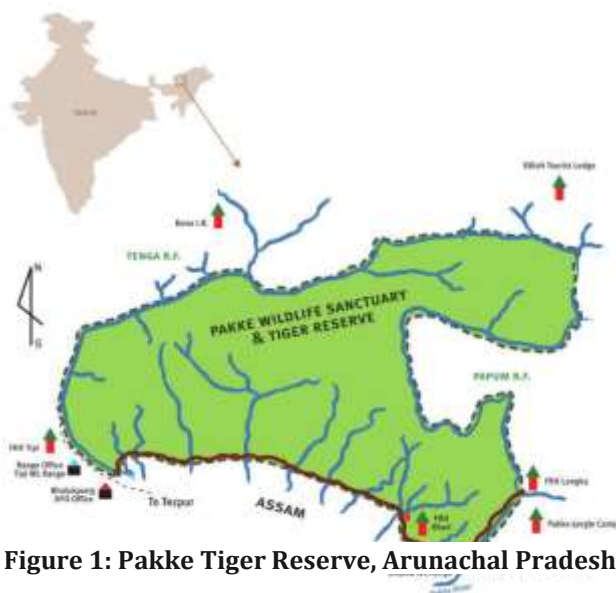


Figure 1: Pakke Tiger Reserve, Arunachal Pradesh

and south-east; Papum Reserve Forest to east; Doimara RF and Eaglenest WLS to the west and Shergaon Forest Division to the North (figure 1). Pakke has two ranges: Seijosa (540.79 km².) and Tipi (321.16 km².). Prior to 1980, the west bank of the Pakke River was leased to the Armed forces for firing practices and the east bank for settlement of retired army personnel, although currently the area has no leases.

The park is almost completely hilly with altitudinal ranges starting from 100 to 2040 m above MSL. The terrain occupied by the forest is highly rugged with mountainous ranges, narrow plains and valleys with hill slopes, which are moderate to steep. While the mountainous

part of the reserve has a temperate climate, that of the lower belt comprising narrow plains and valley is subtropical to tropical. Floods frequent peripheral zone and valleys. The annual average rainfall is approximately 2500 mm. In 1991, 3056 mm rainfall was recorded at Seijosa.

The Reserve has a great diversity of fauna with at least 40 species of mammals, 296 species of birds, 36 species of reptiles, 30 species of amphibians, over 500 species of butterflies and a high floral diversity as well. Some of the major important mammalian species of the sanctuary are Assamese macaque (*M. assamensis*), capped langur (*Trachypithecus pileatus*), sambar (*Cervus unicolor*), barking deer (*Muntiacus muntjak*), wild pig (*Sus scrofa*), Indian hare (*Lepus nigricollis*), gaur (*Bos gaurus*), elephant (*Elephas maximus*), tiger (*Panthera tigris*), leopard (*P. pardus*) clouded leopard (*Neofelis nebulosa*), wild dog (*Cuon alpinus*), jackal (*Canis aureus*), Asiatic black bear (*Ursus thibetanus*), Himalayan yellow throated marten (*Martes flavigula*), Malayan giant squirrel (*Ratufa bicolor*), Eurasian otter (*Lutra lutra*), large Indian civet (*Viverra zibetha*), mongoose (*Herpestes spp.*) and Blanford's fruit bat (*Sphaerias blanfordi*). Several species of birds, reptiles and amphibians have also been reported in this region. The park is well known for its several species of hornbills and in fact in 2016 won the Indian Biodiversity Award in the category of "Conservation of threatened species" for hornbill nest adoption program.

Asiatic black bears and rehabilitation of orphaned bear cubs

Asiatic black bear (*Ursus thibetanus*) is a medium sized bear earlier called as moon bears (with the principal coat colour being black with a white/cream yellow "crescent moon" on the chest). Fossil remains of the Asiatic black bear have been found in various sites in Europe, as far north as the Ural Mountains and Germany and west to France, dating from the early Pliocene to late Pleistocene. But recent historical records show that the species is native to Asia with the western range limited by South-eastern Iran with some pocketed distributions in Northern Pakistan and Afghanistan. The distribution continues eastward along the foothills and south of the Himalayas across India, Nepal, Bhutan with increasing presence towards lower elevations in the hill states of north-eastern India including Pakke Tiger Reserve. In North Karbi Anglong wildlife sanctuary in Assam, northeast India, Asiatic black bear range overlaps with that of both sloth bears and

sun bears—one of the few places in the world where all three of these species coexist, although all are reported to be rare¹.

According to the IUCN Bear Conservation Action Plan, the bear populations at great risk include Asiatic black bear, sun bear, giant panda, sloth bear, brown bears of Mongolia, Tibet, France, Spain and Italy and the spectacled bear of Venezuela, Columbia and the Desert population in Peru. Asiatic black bear is classified as Vulnerable (VU - A1cd) on the IUCN Red List 2002 and listed on Appendix I of CITES since hunting for bear parts has been perceived as a major threat to their survival. The species is listed under Schedule II, Part II of the Indian Wildlife Protection Act (1972). The major threats include widespread illegal hunting for trade in parts combined with habitat loss. Bear cubs that end up in captivity, after the killing of their mothers, are maintained as pets for some time until they are grown up, when they are either confiscated by the Forest Department or voluntarily handed over to zoos for further care. In many temperate countries, where licensed hunting of bears is legalized, rehabilitation of orphaned bear cubs goes hand in hand. In tropical countries like India, where hunting is widespread though illegal, rehabilitation of bears has never been taken up as a project. Though 'surplus' captive bears have been occasionally released to the wild, no record of the success or failure of such attempts has been maintained.

The Asiatic black bear rehabilitation project, taken up jointly by the Department of Environment and Forests, Arunachal Pradesh and the Wildlife Trust of India (WTI) in partnership with the International Fund for Animal Welfare (IFAW), is the only one of its kind to have been initiated in India. The project was largely an initiative of the then Deputy Chief Wildlife Warden of the state Mr. C. Loma, who was earlier the Divisional Forest Officer of Pakke Wildlife Sanctuary where the centre was finally established in 2003.

Wildlife Trust of India (WTI)

Wildlife Trust of India (WTI) is a leading Indian nature conservation organization committed to the service of nature. WTI works towards achieving its vision of a secure natural heritage of India, in six priority landscapes, knit holistically together by nine key strategies or Big Ideas. "Wild Rescue" is one of these eight Big Ideas that aims "To increase the welfare of individual displaced animals while enhancing conservation and pioneering science based rehabilitation and wildlife health across India, and in doing so to save at least 40000 lives in the decade." Wild Rescue strives to achieve this number in a threefold manner (Figure 2, next page):

With over 20 years of experience in the field of evidence-based conservation, WTI has developed expertise in rehabilitation and veterinary skills to address wildlife displacements due to conflicts and calamities, both natural and man-made.

1. Rescuing and rehabilitating temporarily displaced wild animals directly through rescue-rehabilitation centres and mobile veterinary service (MVS) units;
2. Responding to natural and man-made disasters and providing emergency relief to animals (both wild and domestic) through involvement of members from the Pan-India Emergency Relief Network (ERN); and
3. Building capacity of rehabilitators and rescuers across India on best management practices of wildlife rescue and rehabilitation

¹ Garshelis, D. & Steinmetz, R. 2020. *Ursus thibetanus* (amended version of 2016 assessment). *The IUCN Red List of Threatened Species* 2020: e.T22824A166528664. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T22824A166528664.en>. Downloaded on 28 June 2021

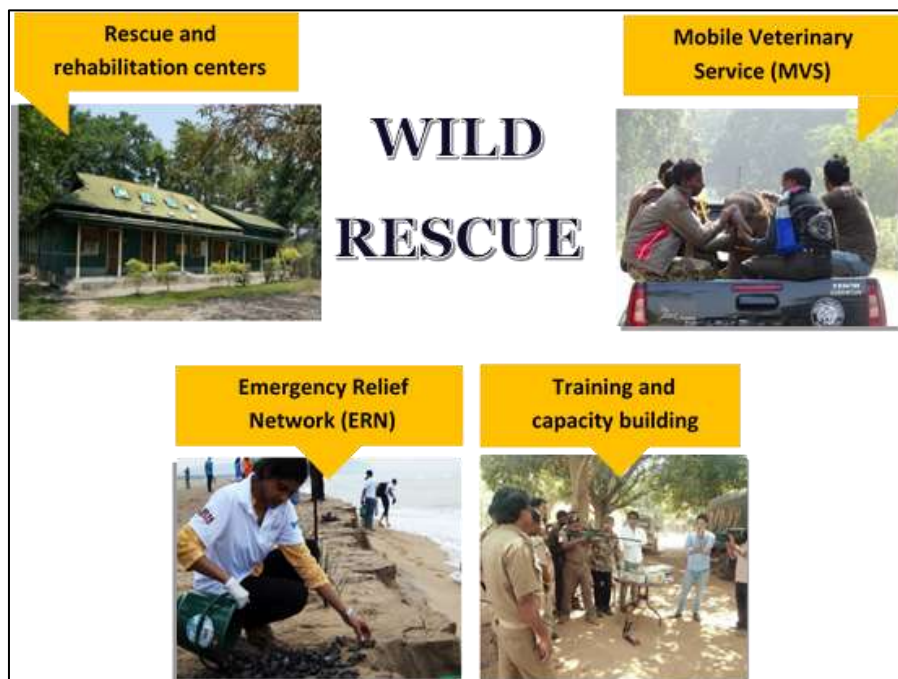


Figure 2: Operational arms of Wild Rescue division of WTI

In 2000, WTI with support from the International Fund for Animal Welfare (IFAW) and in collaboration with the Assam forest department started providing emergency relief and veterinary care to wildlife displaced due to floods thorough deployment of MVS units in Assam. This effort was further augmented by the establishment of two dedicated centres for wildlife rehabilitation namely: Centre for Wildlife Rehabilitation and Conservation (CWRC), Kaziranga National Park, Assam and Centre for Bear Rehabilitation and Conservation (CBRC), Pakke Tiger Reserve, Arunachal Pradesh. These two centres and their allied satellite units have directly contributed to improving the conservation and welfare of more than 250 species of wildlife including elephants, rhinoceros, Asiatic black bears, clouded leopards, vultures, etc.

Center for Bear Rehabilitation and Conservation (CBRC)

Considering the tremendous potential that exists for rehabilitating bears back to the wild in Arunachal Pradesh, Wildlife Trust of India (WTI) signed a Memorandum of Understanding in March 2002 with the Department of Forests and Environment, Arunachal Pradesh, to establish a rehabilitation centre to address the issue of displaced bear cubs. The centre was planned to provide food, shelter, veterinary care and other rehabilitation measures to them until they are fit to be released back into their habitat. The Asiatic bear rehabilitation project was officially launched on the 15th of March 2002, following the signing of a Memorandum of Understanding (MoU) between the Department of Environment and Forests, Arunachal Pradesh and Wildlife Trust of India. As per the MoU, the project is governed by a Governing Council, headed by the Forest Secretary of Arunachal Pradesh. While the Department provides all the logistics for the establishment and smooth running of the Centre in Arunachal, WTI ensures that the project is successfully run. The project has a Project Leader designated by the Forest Department and a point person appointed by WTI. The Governing Council members meet once a year and take review of the project's progress.

In March 2002, WTI submitted a proposal to the Animal Welfare Division, Ministry of Statistics and Program Implementation, Government of India, seeking funds for establishing a rehabilitation centre for Asiatic black bear cubs confiscated in Arunachal Pradesh. To expedite the initiation of the project, a temporary enclosure was built and two bear cubs were moved from Itanagar Zoo. The ministry meanwhile approved the project and released the first instalment of fund for construction in 2002. With additional support received from IFAW, the basic structures came up in 2003 and by 2004, most of the structures were complete. For the



Figure 3: CBRC Being inaugurated by the then Forest Minister of Arunachal Pradesh

running of the project, the first year 2003-04, the British High Commission came forward with financial support, followed by IFAW who has remained a steadfast supporter through the next several years. Though the MoU was signed in 2002, the Centre for Bear Rehabilitation and Conservation (CBRC) was officially inaugurated only in February 2005 by Shri Newlai, the then Forest Minister of Arunachal Pradesh (Fig 3). Apart from rehabilitating orphaned bears, CBRC is also recognized by the Central Zoo Authority (CZA) under the provisions of section 38H of the Wildlife Protection Act, 1972 up to 19th August 2021 as per

the letter File No 21-2/2019-CZA(Vol.1)(E)-Part(1).

3. Vision

The vision of the rescue centre aligns to the vision of the organization which is "A secure natural heritage of India"

4. Mission

The mission of the rescue centre also aligns with the mission statement of the organization which is "To conserve wildlife and its habitat and to work for the welfare of individual wild animals, in partnership with communities and governments"

5. Objective

The rescue centre fits into the Big Idea of 'Wild Rescue' which aims "To increase the welfare of individual displaced animals while enhancing conservation and pioneering science based rehabilitation and wildlife health across India, and in doing so to save at least 40,000 lives in the decade." This is realized through three main objectives:

- a. To provide ethical and humane treatment to wild animals in captivity
- b. To rehabilitate wild animals displaced due to various reasons
- c. To provide veterinary expertise to manage free ranging wildlife

6. About CBRC

S.No.	Particulars	Information
Basic Information about the Rescue Centre		
1	Name of the Rescue Centre	Centre for Bear Rehabilitation and Conservation (CBRC)
2	Year of Establishment	2004
3	Address of the Rescue Centre	Pakke Tiger Reserve, Seijosa, west Bank, East Kameng District, Arunachal Pradesh
4	State	Arunachal Pradesh
5	Telephone Number	08638296302/0120-4143900
6	Fax Number	0120-4143933
7	E-mail address	panjit@wti.org.in info@wti.org.in
8	Website	http://www.wti.org.in/projects/pakke-conservation-project/

S.No.	Particulars	Information
9	Distance from nearest	Airport: Tezpur (60 km)
		Railway Station: Tezpur (60 km)
		Bus Stand: Seijosa (2 km)
10	Recognition by CZA Valid upto (Date)	19 th August 2021
11	Area (in Hectares)	1.244 hectares
Management Personnel of the Rescue Centre		
12	Name with designation of the Officer in-charge	Dr. Panjit Basumatary, Manager, WTI (holding charge)
	Name of the Veterinary Officer	Dr. Panjit Basumatary, Manager, WTI
	Name of the Curator	NA
	Name of the Biologist	
	Name of the Compounder/ Lab Assistant	NA
Owner / Operator of the Rescue Centre		
13	*Name of the Operator	Mr. T. Pali
14	Address of the Operator	O/o Field Director-cum-Divisional Forest Officer, Pakke Tiger Reserve, Seijosa, Arunachal Pradesh
15	Contact details/Phone number of Operator	0436042859
16	E-mail address of Operator	dfopakke@gmail.com

7. Organizational Chart of the Rescue Centre

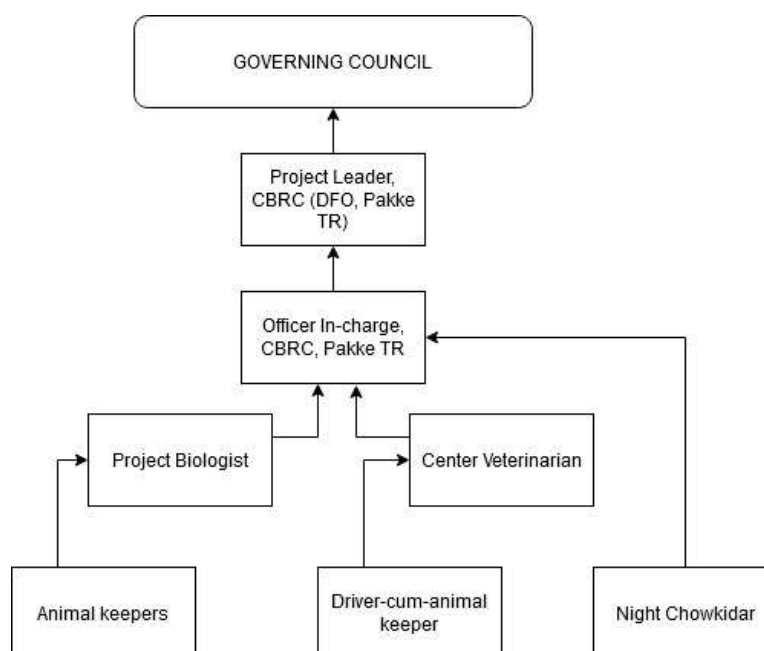


Figure 4: Organizational chart of CBRC

8. Human Resources deployment for management of Rescue Centre (Officer in-charge to Animal Keeper - Sanctioned posts, in-position and vacant posts)

S.No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Centre In-charge/Officer In-charge	1	0 (charge being held by the vet)

2	Centre veterinarian	1	1
3	Project Biologist	1	1
4	Centre driver-cum-keeper	1	1
5	Animal keepers	3	1
6	Night chowkidar	1	1

9. Capacity Building of Rescue Centre personnel (in FY 2020-21)

None

10. Rescue Centre Advisory Committee –

Administratively, CBRC is managed by a “Governing Council” headed by Principal Chief Conservator of Forests and Principal Secretary, Dept. of Environment and Forests, Govt. of Arunachal Pradesh. This council itself is the advisory committee and normally meets every year to discuss the project progress, operations, etc. The constitution of the governing council is as shown below

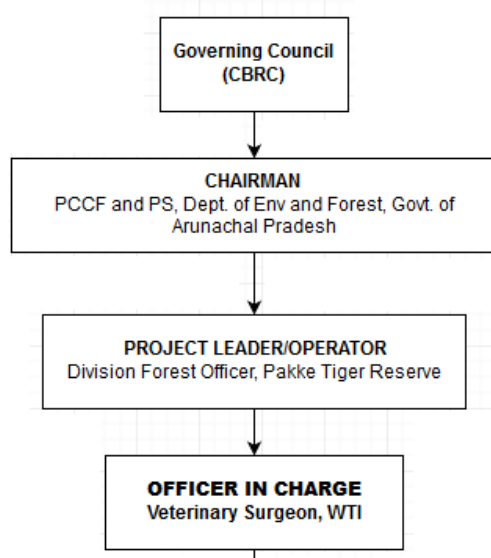


Figure 5: Structure of the Rescue Centre Advisory Committee

- Date of last constitution:** 13th February 2019
- Members:** Other than the people mentioned above, the Chief Wildlife Warden of the state, Executive Director of WTI, Senior Director and Chief Veterinarian, WTI, Project head WTI, Director Itanagar biological park, and Veterinary Assistant Surgeon, Itanagar Biological Park.
- Dates on which last meetings held during the year:** 4th March 2021

11. Health Advisory Committee of the Rescue Centre –

None

12. Statement of income and expenditure of the Rescue Centre

13. Daily feed Schedule of animals under lifetime care

Sl. No.	Species	Feed item	Quantity		Day of fasting
			Winter	Summer	
1.	Asiatic black bear (<i>Ursus thibetanus</i>)	1. Wheat=5.5Kg (individually=1.1kg), 2. Gram=1.8kg (Individually=0.36g), 3. Jaggery=1kg (individually=0.2gram) 4. Egg=1egg each per day 5. Banana, jackfruit, papaya, cucumber, pumpkin, sugarcane, coconut, and seasonal fruits are given on availability	Same	same	Saturday no food Wednesday (just fruit)-
		Naturally available (seasonal) – ad libitum 1. Elephant apple <i>Dillenia indica</i> fruits 2. Kanchan patta 3. <i>Bauhinia purpurea</i> leaves			

14. Vaccination Schedule of animals

Sl. No.	Species	Vaccination	Month
1	Asiatic black bear (<i>Ursus thibetanus</i>)	Anti-rabies vaccination (booster)	December-January

15. De-worming Schedule of animals

Sl. No.	Species	Drug used	Month
1	Asiatic black bear (<i>Ursus thibetanus</i>)	Fenbendazole	6-month interval after faecal examination

16. Disinfection Schedule

Sl. No.	Species	Type of enclosure	The disinfectant used and method	Frequency of disinfection
1.	Asiatic black bear (<i>Ursus thibetanus</i>)	Chain link mesh	Fumigation and lime treatment of the floor	Dry season

17. Health Check-up of employees for zoonotic diseases

S.No.	Name	Designation	Date of Health Check-up	Findings of Health Check-up
1.	Panjit B	Veterinarian	Dec 2020	Screened for tuberculosis (negative) Vaccinated against rabies and tetanus
2.	Duluk Dagang	Driver-cum-keeper	Dec 2020	Screened for tuberculosis (negative) Vaccinated against rabies and tetanus
3.	Aman Biri	Animal keeper	Dec 2020	Screened for tuberculosis (negative) Vaccinated against rabies and tetanus
4.	Pinjar Lagum	Night chowkidar	Dec 2020	Screened for tuberculosis (negative) Vaccinated against rabies and tetanus
5.	Anthony Ngorang	Animal Keeper	Dec 2020	Screened for tuberculosis (negative) Vaccinated against rabies and tetanus

18. Development Works carried out in the Rescue Centre during the year

- i. In the animal shelter area, apart from the holding cages, there is a large orientation yard which is open to sky. It was partitioned in mid-2020 and a chain-link mesh (reinforced with a solar powered electric fence) was installed so that two sets of bears can be held in these two different sections. There is approximately 3 m passageway for the staff to move along the two sections of the yard on either side.
- ii. As per the compliances put forward by CZA for continuation of recognition of CBRC as a rescue centre, a quarantine enclosure was partly constructed in 2020. The construction is not completed yet and the holding area is only complete while the rest of the enclosure has to be erected, the work of which will commence in 2021.
- iii. Renovation work of the field office which commenced in 2019 is now 75% completed (two wings) with slight reorganization of the overall layout. The work for the remaining portion (West Wing) will be in mid-2021. As per the modified layout, the inverted U-shaped building has three wings: Central, Eastern and Western. The central and eastern wings, now rebuilt, have two toilets, one kitchen, one large space for the office and two retiring rooms for guests/staff on duty. There is a covered shed at the corner junction of the Central and Eastern wings, which is used as an open kitchen for staff on duty. The roofing is corrugated galvanized iron sheets. There is also a small room (4.3 X 3.6 X 2.9 m) with a sloping corrugated sheet ceiling that serves as one of the store rooms behind the main administrative building (figure 7, next page).



Figure 6: (Top) Renovated wings of the Field office; (Bottom, left) Store room behind the office; (Bottom, Right) Main office

19. Important Events and happenings

None due to COVID restrictions

20. Seasonal special arrangements for upkeep of animals

Two wallowing pools are available for the bears to take a dip during hot summer days. A den on a raised platform has also been constructed in the holding enclosures (figure 8).



Figure 7: Den for bears under care

21. Research Work carried out and publication

None

22. Rescue and Rehabilitation of wild animals

None

23. Annual Inventory of animals

Form – II

[See Rule 11(1)]

Part – A

Inventory Report for the Year:

Endangered Species*

S.No.	Animal Name	Scientific name	Opening Stock as on April 2020				Births			Acquisition			Disposal (released)			Death			Closing Stock as on March 2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Asiatic black bear	<i>Ursus thibetanus</i>	2	3	0	5	0	0	0	2	4	0	2	2	0	0	1	0	2	4	0	6

*Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

Part – B

Other than Endangered Species

S.No.	Animal Name	Scientific name	Opening Stock as on				Births			Acquisition			Disposal			Death			Closing Stock as on			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T

24. Mortality of animals

Sl. No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post-mortem findings

25. Compliance with conditions stipulated by the Central Zoo Authority

No condition for compliance has been sent for the FY 2020-21. The conditions for compliance was sent for 2021-22 which will be complied and responded to.

26. Photographs of major activities undertaken in 2020-21



Figure a: One of the bear cubs being hand-raised at CBRC



Figure b: Adult bear in the orientation yard



Figure c: Adult bears using the newly constructed den



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F-13, Sector-8

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Uttar Pradesh

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