

Annual Report

2021-22

CENTRE FOR BEAR REHABILITATION AND
CONSERVATION

Pakke Tiger Reserve, Arunachal Pradesh



CONTENTS

1. Report of the Officer-in-charge	01
2. History of the Rescue Centre	01
Pakke Tiger Reserve	01
Asiatic black bears and rehabilitation of orphaned bear cubs	02
Wildlife Trust of India (WTI)	03
Centre for Bear Rehabilitation and Conservation (CBRC)	04
3. Vision	05
4. Mission	05
5. Objective	05
6. About CBRC	06
7. Organizational Chart of the Rescue Centre	07
8. Human Resources deployment for management of Rescue Centre	07
9. Capacity Building of Rescue Centre personnel (FY 2021-2022)	07
10. Rescue Centre Advisory Committee	08
11. Health Advisory Committee of the Rescue Centre	08
12. Statement of income and expenditure of the Rescue Centre	08
13. Daily feed Schedule of animals under lifetime care	09
14. Vaccination Schedule of animals	09
15. De-worming Schedule of animals	09
16. Disinfection Schedule	10
17. Health Check-up of employees for zoonotic diseases	10
18. Development works carried out in the Rescue Centre during the year	10
19. Important Events and happenings	11
20. Season special arrangements for upkeep of animals	12
21. Research Work carried out and publications	12
22. Rescue and Rehabilitation of wild animals	12
23. Annual inventory of animals	12
24. Mortality of animals	13
25. Compliance with conditions stipulated by the Central Zoo Authority	13
26. Photographs of major activities undertaken in 2021-2022	13

1. Report of the Officer-in-charge

This is the eighteenth year of CBRC being operational in Pakke Tiger Reserve, Arunachal Pradesh since its establishment in 2004. The project has directly contributed to the 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 center.

The three of the four bears at the center 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 a 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 center 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, 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 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 (26° 55' to 27° 15' E; 92° 35' to 93° 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



Fig 1. Pakke Tiger Reserve, Arunachal Pradesh

National Park, Assam to the south 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 three ranges: Seijosa, Tipi, Rilloh. 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 of 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 muntjac*), 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 rare.

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 centers 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.

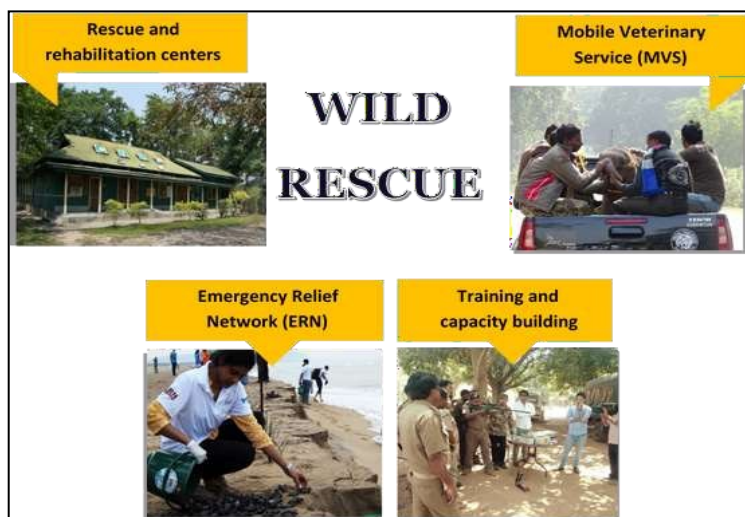


Figure 2: Operational arms of Wild Rescue division of WTI

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



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

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 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, Pakke-Kessang 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/
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	Asish Immanuel Baglary
	Name of the Compounder/ Lab Assistant	NA
Owner / Operator of the Rescue Centre		
13	*Name of the Operator	Mr. Suraj Singh, IFS
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	91-8285875186
16	E-mail address of Operator	dfopakke@gmail.com

7. Organizational Chart of the Rescue Centre

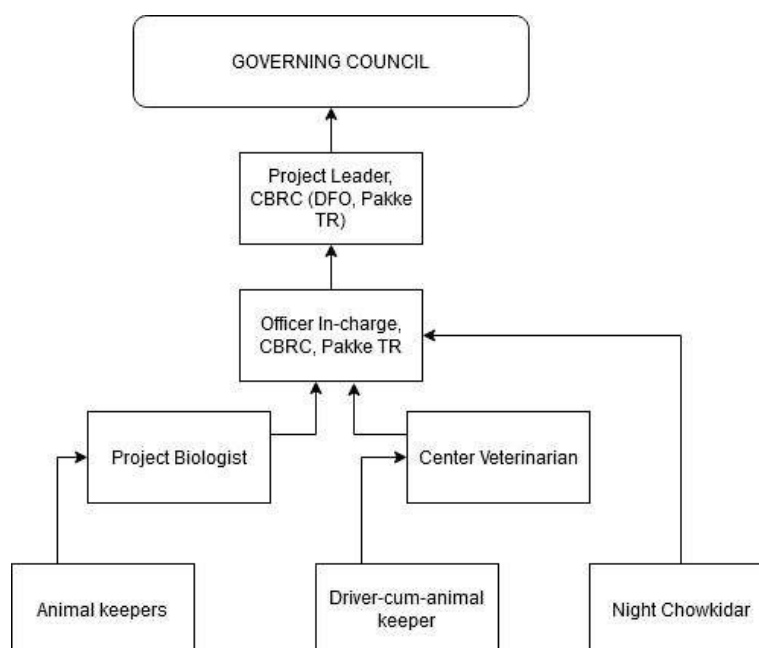


Figure 4: Organizational chart of CBRC

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

Sl.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:

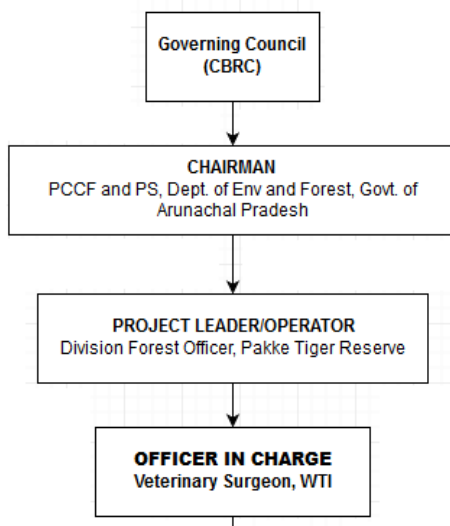


Figure 5: Structure of the Rescue Centre Advisory Committee

- a.** Date of last constitution: 16th March 2022
- b.** 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.
- c.** 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 blackbear (<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 nofood 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 4. <i>Ficus</i> sp. fruits 5. <i>Calamus</i> sp. 6. <i>Syzgium</i> sp.			

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 fecal 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

Sl. No	Name	Designation	Date of Health check up	Findings of Health check up
1.	Dr. Panjit Basumatary	Veterinarian		Screened for tuberculosis (negative)Vaccinated against rabies and tetanus
2.	Asish Immanuel Baglary	Biologist		Screened for tuberculosis (negative)Vaccinated against rabies and Tetanus
3.	Duluk Dagang	Driver		Screened for tuberculosis (negative)Vaccinated against rabies and Tetanus
4.	Pinjar Lagun	Animal Keeper		Screened for tuberculosis (negative)Vaccinated against rabies and Tetanus
5.	Anthony Ngorang	Animal Keeper		Screened for tuberculosis (negative)Vaccinated against rabies and tetanus

18. Development work carried out in the rescue centre during the year

- i. As per the compliances put forward by CZA for the continuation of recognition of CBRC as a rescue center, a quarantine enclosure was partly constructed in 2020. The construction is not completed yet and the holding area is completed while the rest of the enclosure has to be erected, the work of which will commence in 2022.
- ii. The boundary power fence has been completed which encompasses the entire animal holding area.
- iii. CCTV camera have been installed throughout the office and animal holding areas providing real- time images of the animals for monitoring. 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 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 galvanize 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 6, next page).



Figure 6: Photographs of Office room (Top left), CCTV monitoring of the office (Top right) and animal enclosures (Bottom left) and the completed structure of the office building (Bottom right)

19. Important events and happenings

- i. Celebrated the Pakke-Paga Hornbill festival in online and offline mode.
- ii. In the Grain for Grain event distributed 5200 kilograms of rice to local community who lost their crops, due to wildlife conflict.
- iii. Presentation on CBRC during the Arunachal Pradesh State Cabinet Meeting held in Pakke Tiger Reserve.
- iv. A team from the Television series, the “Earth Matters” along with Rannvijay Singh come to document the rehabilitation process of bears during the year. The series was aired in March 2022 throughout the country and abroad where they fascinated the CBRC activities.
- v. CBRC team along with forest officials and other local community, Celebrated “World Elephant Day” on 12th Aug’2022.

20. Seasonal special arrangements for upkeep of animals

- i. Two wallowing pools are available for bears to take a dip during hot summer days.
- ii. Bear enclosures received major upgradation following the construction of a lounging *machan* (platforms) with rainproof roof and a den.
- iii. Fabrication of new chain-link mesh in the two large enclosures and the replacement of solar fence along the boundary of the enclosures.

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 of the Year:

Endangered species*

SL. No	Animal name	Scientific name	Opening stock as on April 2021				Births			Acquisition			Disposal (released)			Death			Closing stock as on March 2022			
			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	2	0	4	0	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5

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

Part B

Other endangered species

SL. No	Animal name	Scientific name	Opening stock as in April 2021				Births			Acquisition			Disposal (released)			Death			Closing stock as in March 2022			
			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 2021-2022.

26. Photographs of major activities undertaken in 2021-2022.

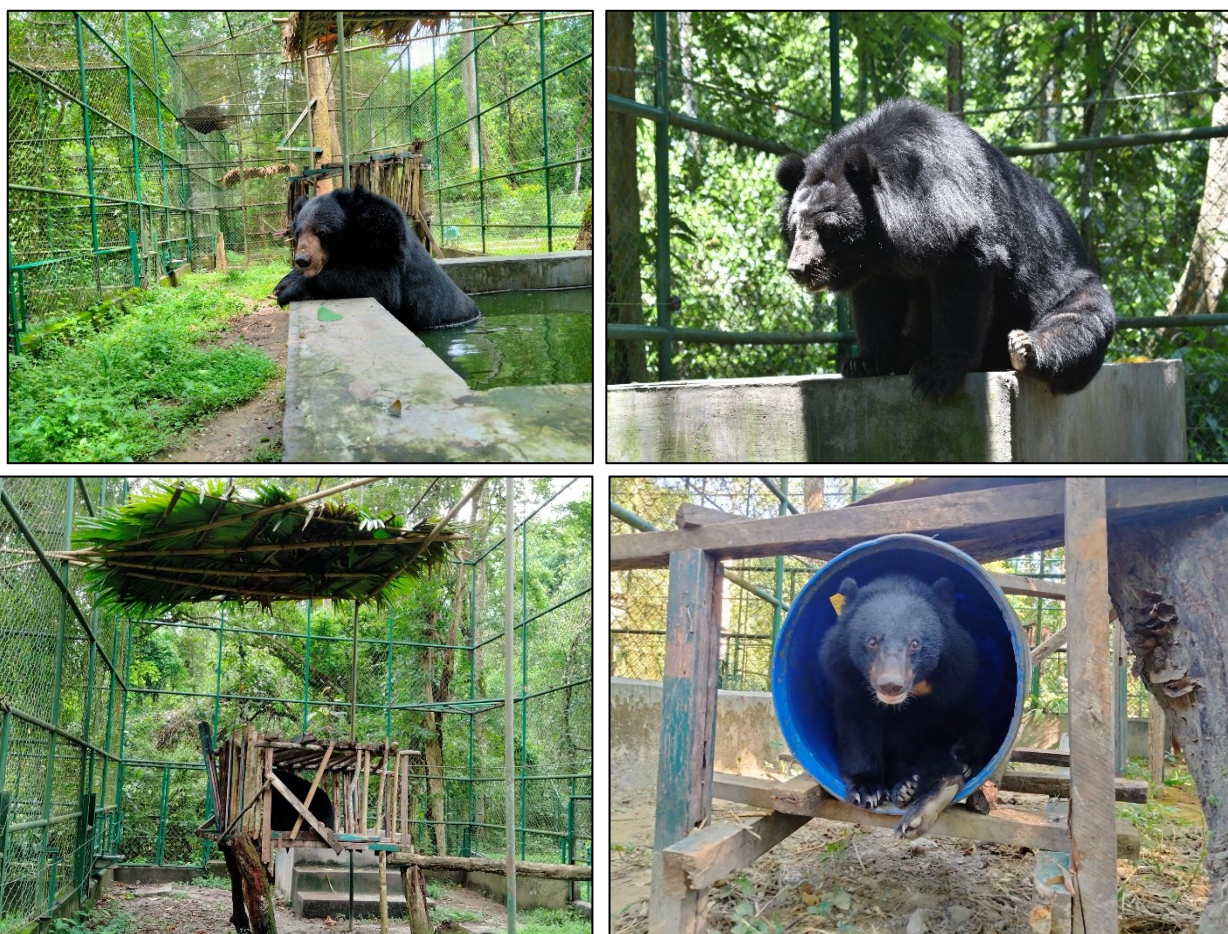


Figure 7: Photographs of Bear in closed bigger enclosure water tub (Top left & right), Bear in Machan with resting platform (Bottom left) and the Bear in elevated refuge den (Bottom right)



Figure 8: Photographs of Bear in open air enclosure



Figure 9: Photographs of open-air enclosure CBRC



**Figure 10: Photographs School students visit
CBRC**



**Figure 11: Photographs of “World Elephant
Day” celebration CBRC**



Figure 12: Photographs CBRC tree species Marking with common name and scientific



Figure 12: Photographs of State chief minister along with Cabinet Ministers visit CBRC