

Annual Report 2022-2023

Center for Bear Rehabilitation and Conservation

Wildlife Trust of India, Pakke Tiger Reserve, Arunachal Pradesh



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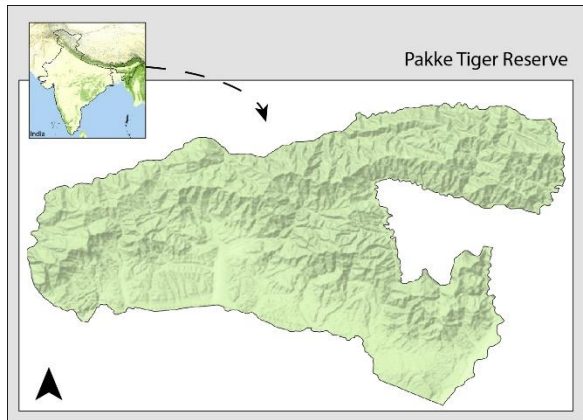
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1. Report of the Officer-in-charge

This year marks CBRC's nineteenth year of service in the Pakke Tiger Reserve of Arunachal Pradesh. Since inception, nearly every orphaned black bear cub admitted to the centre was rehabilitated and released back into the wild. This project has made a direct contribution to the conservation of Asiatic black bears in the landscape. Five rescued bears currently living at the centre are undergoing lifetime captivity because they were brought there as cubs between the ages of 6 and 11 months with the hope of releasing them back into the wild. These bears were too old to be subjected to the revised bear rehabilitation method that was implemented in 2004 due to a change in the protocol. Bear cubs for rehabilitation at the release site were cared for by a team of keepers led by a biologist, which is now released after collaring one individual. Regarding bear diet and nutrition, for the first five months of their lives, cubs are hand-fed a special milk formula, while captive adults are fed a concentrate mix complemented with foraged fruits, vegetables, and tubers. The concentrate ingredients are a breakfast porridge of cereal and pulses bound with jaggery and broken eggs. When necessary, nutritional additives are included. Developmental improvements at CBRC included updating the facility's administrative office (field office) and animal shelter, with support from the Arunachal Pradesh Forest Department and other corporate donors. To maintain CZA's recognition of CBRC as a rescue centre, the facility has built a quarantine enclosure and three additional closed enclosures to house bears that will remain in captivity for the rest of their lives. We have remodelled the bear cubs' nursing room in addition to providing them with closed enclosures to ensure their safety and comfort. Additionally, this year we were able to secure a Memorandum of Understanding (MOU) between the Arunachal Pradesh Forest department and WTI for 5 years to run the CBRC Project, as well as renewal recognition of the Centre for Bear Rehabilitation and conservation under for a period of 3 years and beyond.

2. History of the Rescue Centre

Pakke Tiger Reserve



The Indian state of Arunachal Pradesh occupies 15.76 percent of the Indian Himalayan region and 43.62 percent of the biological hotspot that is the Eastern Himalaya. It is the largest state in India's north-eastern region. Three of its borders are with other countries: to the west with Bhutan, to the north with China, and to the east with Myanmar. Forest cover is the most important

land use because most of the land area (about 64%) is still covered by forests and grasslands. Although the state has a large amount of forest, it is fighting to keep it that way in the face of rising demand for development. Rapid fragmentation and degradation of forest and forest resources of the state have occurred in the last three decades due to population growth, agricultural practices (jhuming), and the development of towns. Loss of habitat and illegal hunting have become major threats to numerous mammal and avian species.

The **Pakke Tiger Reserve** (26° 55' to 27° 15' E; 92° 35' to 93° 10' N) was formerly known as the Pakhui Wildlife Sanctuary and is now managed by the Seijosa Wildlife Division (Fig 1). The area was designated as a wildlife sanctuary in 1977, renamed Pakke Wildlife Sanctuary Division in 2001, and declared a tiger reserve in 2002; it now encompasses 861.95 km², or 20% of the East Kameng district of Arunachal Pradesh. All sides of the Tiger Reserve are protected, with Nameri National Park in Assam to the south and south-east, Papum Reserve Forest to the east, Doimara RF and Eaglenest WLS to the west, and Shergaon Forest Division to the north (Figure 1). Pakke is home to the Seijosa, Tipi, and Rilloh forest ranges. Although no leases exist in the region at present, prior to 1980 the Armed Forces leased land on the west bank of the Pakke River for firing practises and on the east bank for settlement by retired army personnel. The park is predominantly hilly, with elevations ranging from 100 to 2040 metres above mean sea level. The forest covers a very varied topography, including steep hill slopes, narrow plains, and high mountain ridges. The reserve has a temperate climate in its mountainous regions, but a subtropical to tropical one in its lower belt, which consists of narrow plains and valley. The peripheral and the valleys are particularly prone to flooding. The typical annual precipitation is around 2500 mm. There are over 500 different

kinds of butterflies and at least 40 different kinds of mammals in the Reserve. Some of the sanctuary's most important mammalian species include 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 bird, reptile, and amphibian species have also been reported in this area. The park is well known for its numerous species of hornbills, and it even won the Indian Biodiversity Award in the category of "Conservation of threatened species" in 2016 for its hornbill nest adoption programme.

Asiatic black bears and rehabilitation of orphaned bear cubs

The Asiatic black bear (*Ursus thibetanus*) is a medium-sized bear that was previously known as moon bears (the main coat colour is black with a white/cream yellow "crescent moon" on the chest). The species is native to Asia, with the western range limited by south-eastern Iran and some pocketed distributions in northern Pakistan and Afghanistan. The distribution continues eastward along the foothills and south of the Himalayas across India, Nepal, and Bhutan, with an increasing presence towards lower elevations in the hill states of north-eastern India, including the Pakke Tiger Reserve. Asiatic black bear range overlaps with sloth bear and sun bear ranges in North Karbi Anglong wildlife sanctuary in Assam, northeast India—one of the few places in the world where all three species coexist, though all are reported to be rare.

According to the IUCN Bear Conservation Action Plan, bear populations under threat include the Asiatic black bear, sun bear, giant panda, sloth bear, brown bears of Mongolia, Tibet, France, Spain, and Italy, as well as the spectacled bears of Venezuela, Columbia, and Peru's Desert population. Since hunting for bear parts has been perceived as a major threat to their survival, the Asiatic black bear is classified as Vulnerable (VU - A1cd) on the IUCN Red List 2002 and listed on Appendix I of CITES. The species is protected under the Indian Wildlife Protection Act, Schedule II, Part II (1972). The main threats are widespread illegal hunting for trade in parts, as well as habitat loss. Bear cubs that end up in captivity after their mothers are killed are kept as pets for a while until they are old enough to be confiscated by the Forest Department or voluntarily handed over to zoos for further care.

Rehabilitation of orphaned bear cubs goes hand in hand in many temperate countries where licensed bear hunting is legal. In tropical countries such as India, where hunting is common but illegal, bear rehabilitation has never been undertaken as a project. Though 'surplus' captive bears have been released into the wild on occasion, no record of the success or failure of such attempts has been kept.

The Asiatic black bear rehabilitation project, launched in collaboration with the International Fund for Animal Welfare (IFAW) by the Department of Environment and Forests of Arunachal Pradesh and the Wildlife Trust of India (WTI), is the first of its kind in India. The project was largely the initiative of the state's then-Deputy Chief Wildlife Warden, Mr. C. Loma, who was previously the Divisional Forest Officer of Pakke Wildlife Sanctuary, where the centre was eventually established in 2003.

Wildlife Trust of India (WTI)

The Wildlife Trust of India (WTI) is a leading Indian conservation organisation dedicated to serving nature. WTI works to secure India's natural heritage in six priority landscapes, which are linked together holistically by nine key strategies or Big Ideas. "Wild Rescue" is one of the eight Big Ideas, with the goal of "improving the welfare of individual displaced animals while enhancing conservation and pioneering science-based rehabilitation and wildlife health across India, and thus saving at least 40000 lives over the decade." Wild Rescue strives to achieve this figure in three ways (Fig 2):

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.

WTI began deploying MVS units in Assam in 2000 to provide emergency relief and veterinary care to wildlife displaced by floods. This was made possible by funding from the International Fund for Animal Welfare (IFAW) and cooperation with the Assam Forest

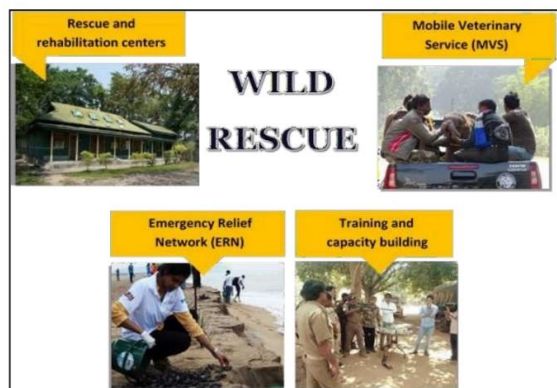


Fig 2: Operational arms of Wild Rescue division of WTI

department. The efforts of these groups were bolstered by the opening of two specialised wildlife rehabilitation centres: the Centre for Wildlife Rehabilitation and Conservation (CWRC) in Assam's Kaziranga National Park and the Centre for Bear Rehabilitation and Conservation (CBRC) in Arunachal Pradesh's Pakke Tiger Reserve. Elephants, rhinoceroses, Asiatic black bears, clouded leopards, vultures, etc. have all benefited from the work of these two centers and the affiliated satellite units that support them.

Center for Bear Rehabilitation and Conservation (CBRC)

Wildlife Trust of India (WTI) and the Department of Forests and Environment, Arunachal Pradesh, signed a Memorandum of Understanding in March 2002 to establish a rehabilitation centre to address the issue of displaced bear cubs, with the goal of providing them with food, shelter, veterinary care, and other rehabilitation measures until they are fit to be released back into the wild. The Asiatic bear rehabilitation project was officially launched on March 15, 2002, following the signing of a Memorandum of Understanding (MoU) between the Arunachal Pradesh Department of Environment and Forests and the



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

Wildlife Trust of India. The project is governed by a Governing Council, which is chaired by the Forest Secretary of Arunachal Pradesh, according to the MoU. While the Department provides all logistics for the Center's establishment and smooth operation in Arunachal, WTI ensures the project's success. 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 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 27th July 2024 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. CBRC details

Sl. 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 po.pakke@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)	27 th July, 2024
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	Subhasish Arandhara
	Name of the Compounder/ Lab Assistant	NA
Owner / Operator of the Rescue Centre		
13	*Name of the Operator	Mr. Satyaprakash 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	??
16	E-mail address of Operator	dfopakke@gmail.com

7. Organizational Chart of the Rescue Centre

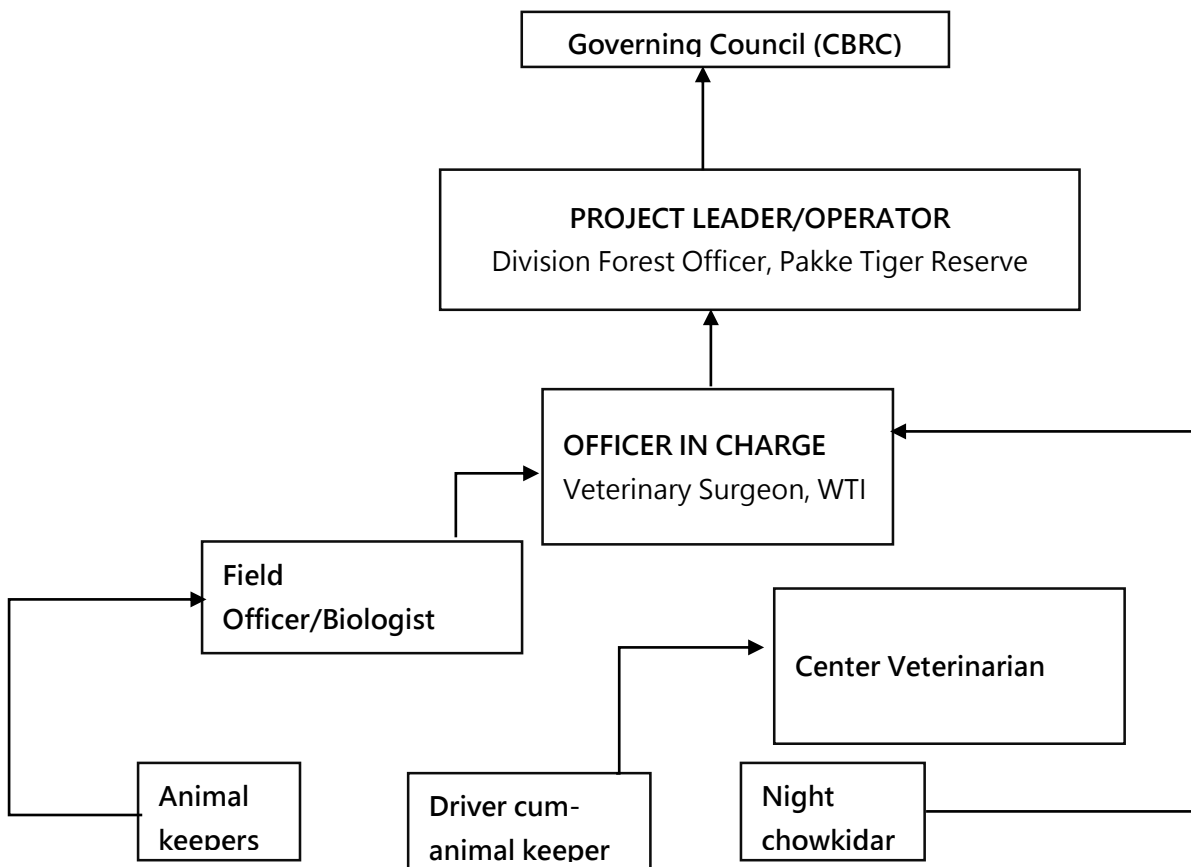


Fig 4: Organizational chart of CBRC

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 2022-23)

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:

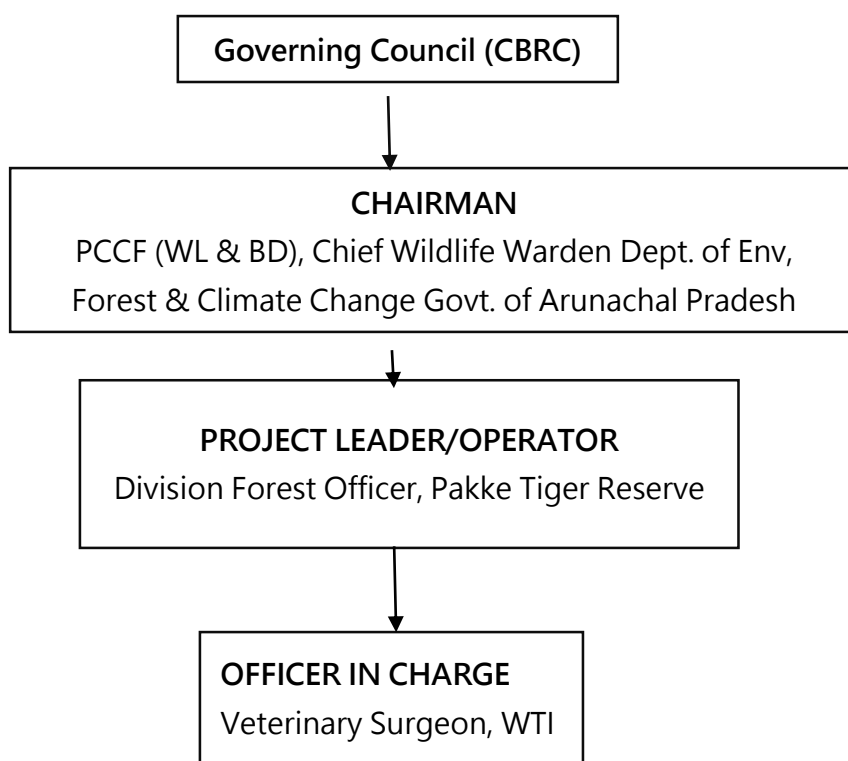


Fig 5: Structure of the Rescue Centre Advisory Committee

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: **August 30, 2022.**

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	
	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. Bauhinia purpurea leaves 3. Ficus sp.fruits 4. Calamus sp. 5. Syzgium 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.	Subhasish Arandhara	Biologist		Screened for tuberculosis (negative) Vaccinated against rabies and Tetanus
3.	Duluk Dagang	Driver		Screened for tuberculosis (negative) Vaccinated against rabies and Tetanus
4.	Anthony Ngorang	Animal Keeper		Screened for tuberculosis (negative) Vaccinated against rabies and tetanus
5.	Jehwa Natung	Animal Keeper		Screened for tuberculosis (negative) Vaccinated against rabies and Tetanus
6.	Ayung Gadi	Animal Keeper		Screened for tuberculosis (negative) Vaccinated against rabies and Tetanus
7.	Ajit Malik	Animal Keeper		Screened for tuberculosis (negative) Vaccinated against rabies and Tetanus

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

- i. A quarantine enclosure was completed by 2023, in accordance with the CZA compliances for the continuation of CBRC's recognition as a rescue centre.
- ii. Renewal of recognition for the Centre for Bear Rehabilitation and Conservation under sections 38-H (1), (3), and (4) of the Wild Life (Protection) Act of 1972 for a period of three years beyond July 27, 2024.
- iii. A new Memorandum of Understanding has been signed between the Centre for Bear Rehabilitation and Conservation (CBRC). On August 4, 2022, the Arunachal Forest Department and WTI signed an agreement. The CBRC Project will be run under the same MoU for the next five years.
- iv. On August 30, 2022, the Centre for Bear Rehabilitation and Conservation (CBRC) Governing Body Council will meet.
- v. CBRC Centre provided another three closed enclosures to care for captive bears for the rest of their lives. In addition to closed enclosures, we have renovated the bear cubs nursing room for the benefit of the small cubs.
- vi. Within the office premises, the centre also built a parking shed for animal cages as well as a mobile veterinary rescue vehicle.



Fig 6: Structure of the office building including new MVS vehicle

19. Important events

At Seijosa, we celebrated the Pakke-Paga Hornbill festival from 18th -20th Jan'2023, where WTI staged a skit involving the local students of Vivekananda Kendra Vidyalaya in Seijosa, focusing on biodiversity conservation in pakke, and also launched a state-wide campaign of "air-gun surrenders abhiyan" for conservation days. The play proved to be the highlight of the three day Pakke Paga hornbill festival as it was appreciated by one and all, specially the community heads and children's.

We also celebrated World Elephant Day, Global Tiger Day, and World Environment Day, and we did all of this in collaboration with the Pakke Tiger reserve park Authority, the local community, school students, and the civil authority. As part of our efforts to celebrate World Environment Day, we have organized a rally, as well as a drive to clean up the Pakke riverbed and a program to plant trees in the outlying villages of Seijosa. In addition to that, we celebrated the year 2022 of the Global Tiger together with the students of Seijosa.

20. Seasonal special arrangements for upkeep of animals

The CBRC facility enriched with two bigger sizes natural open air enclosure and six medium sizes closed enclosures within the premises. The closed enclosures were provided sufficient enrichment with wooden platform, rain proof shed and concrete water bath (Swimming pool). During summer they come to pool and play as much as they like and rest at the wooden platform (*machan*). The open air enclosure has enough natural enrichment with dense forest. There are enough big trees, herbs, shrub's, death down tree and water shower for bath. During winter they are mostly staying inside open air enclosures and nesting at the top of big trees too.

21. Research work carried out and publication

Research work:

The rehabilitation team gathers data on the bears' pre-release morphometry, diet and vegetation, behaviors, and basic knowledge of their ranging. Research projects at the

release site include, but are not limited to, rehab bears' habitat preferences could be better understood with the help of a vegetation survey conducted in the bear walk areas. This survey estimated the cover, frequency of occurrence, and density of plant species that were consumed by the bears and those that were not consumed but were available in the habitat as cover. Focal observations were made of the bears' behavior while they were out on their acclimatization walk. In addition to studying the factors that influence bear behavior, including understanding of bears' unique personalities, the team have also calculated the relative activity index (RAI) as a measure of relative activity frequency and sampling effort.

Publication: Nil

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 2022				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
1	Asiatic black bear	<i>Ursus thibetanus</i>																			

*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 on April 2022				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

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
	Asiatic black bear	<i>Ursus thibetanus</i>	F		Hemorrhagic shock as a result of intra-species aggression.

25. Compliance with conditions stipulated by the Central Zoo Authority

No condition for compliance has been sent for the FY 2022-2023.

26. Photographs of major activities undertaken in 2022-2023.



Fig 7: Governing council meeting held at Itanagar PCCF office, Arunachal Pradesh.



Fig 8: Plantation programme on World Environment Day, 2022



Fig 9: Cleanliness drive Pakke Riverbed on World Elephant Day 2022 programme



Fig 10: Global Tiger Day rally

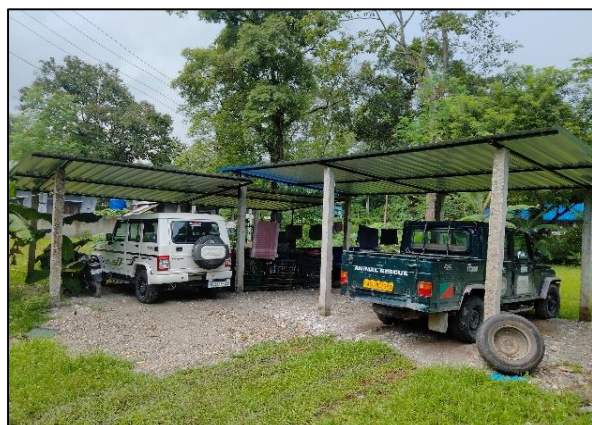


Fig 11: Animal cages parking shed and Bear cubs



Fig 12: Fabricated three closed enclosures for lifetime