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Diary No. 35

Date 24/3/2011

**Centre for Wildlife Rehabilitation and Conservation
(CWRC)**

**MASTER PLAN
(2010 - 2020)**



**Assam
Forest
Department**



Document submitted to the
Central Zoo Authority

DR. GUPTA

O/o Central Zoo Authority

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February, 2010

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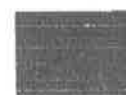
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Name of Rescue Centre	Centre for Wildlife Rehabilitation and Conservation
Address	Kaziranga National Park, Borjuri, Bokakhat
City	Bokakhat
District	Golaghat
State	Assam
Area of Rescue Centre	6.3 Hectares (3.05 Hectares + 3.25 Hectares)
Year of establishment	2002
Controlling Authority	Department of Environment and Forests, Govt. of Assam and Wildlife Trust of India
Director/ Officer in charge	Dr. N.V.K Ashraf, Wildlife Trust of India
Telephone No.	03776-269563
Fax No	03776-269563
E-mail	boropk@rediffmail.com
Web site	wildlifetrustofindia.org.in
Curator	None
Senior Veterinary Officer	Dr. Prasanta Kumar Boro, Assistant Manager, Wildlife Trust of India
Junior Veterinary Officer	Dr. Phulmoni Gogoi, Veterinary Surgeon,
Wildlife Biologist	None
Annual Visitor to the Zoo	Does not apply
No of endangered species at the Rescue Centre	5
No of endangered animals at the Rescue Centre	10
No of species in the Rescue Centre	5
No. of animals in the Rescue Centre	10

Visiting hours

Summer starts: Does not apply Ends: Does not apply

Winter starts: Does not apply Ends: Does not apply



**Assam
Forest
Department**

Part –I

The Present



1. Introduction

India's wildlife is facing increasing pressures due to developmental activities like agriculture, grazing and human habitation. Natural calamities like forest fires, floods and cyclones have further compounded their problems, hindering movement to safer habitats. Animals succumb to such changes and pressures, or get displaced, injured or stranded. Many such animals eventually end up in over-crowded zoos or ill-equipped lifetime care centres. Though some species are able to adapt to these changes, a vast majority succumb to these pressures. Often animals tend to stray out of their diminishing habitats in search of food or shelter, into villages adjoining forests; or sometimes into urban areas away from the forests. The policy of non-interference or "leave it alone" attitude towards our wildlife is no longer practicable. Without active conservation measures, many wildlife species are likely to become extinct due to anthropogenic changes in their habitats. Wildlife, especially animals in distress, cannot be left unattended.

The general practice has been to place rescued animals in, already over-crowded, zoos or ill-equipped animal care centres. There is an increasing public opinion to see the return of these rescued wild animals to their natural habitat instead of depositing them in zoos. The reputation of zoos is also getting tarnished when rescued animals, for want of space, are housed in substandard enclosures.

With many of India's endangered species occurring in discrete, fragmented populations, every loss means a further reduction in the effective population size. Rehabilitation is a wildlife management tool, which if strategically used, can significantly contribute to the conservation of endangered species. There is also immense potential for using rehabilitated animals in reintroduction programs instead of capturing individuals from the wild.

Wildlife rehabilitation is no longer the preserve of the developed countries alone, and is becoming increasingly common in developing countries as well (Karesh, 1995; Agoramoorthy, 1998). In recent years, there has been an upsurge in the incidents of rescue and rehabilitation activities across the country. Realizing the need to provide special care to wildlife casualties, a few rehabilitation centres have been established in the country. Many rehabilitators function as

individuals and organizations working with makeshift facilities only, thus necessitating establishment of the first wildlife rehabilitation centre near Kaziranga National Park in Assam.

1.1. Kaziranga National Park, a world heritage site

The Kaziranga National Park (KNP), situated 220 km east of Assam's capital city of Guwahati, is home to the world's largest concentration of greater one-horned rhinoceros (*Rhinoceros unicornis*). The park is also a haven for other animals such as the Asian elephant (*Elephas maximus*), leopard (*Panthera pardus*), Asiatic black bear (*Ursus thibetanus*), Bengal tiger (*Panthera tigris*) and Asiatic wild buffalo (*Bubalus arnee*), besides many species of reptiles and birds like the rare and endangered Bengal florican (*Houbaropsis bengalensis*). Kaziranga is a very popular tourist destination both locally and internationally due to the rich fauna and flora it possesses. However many factors threaten Kaziranga's wildlife, both anthropogenic and natural.

Kaziranga National Park (26°30' and 26°45' N and 93°5 and 93°40 E) is the most well known protected area in Northeast India for the 2000 odd rhinos in it (2006 Census). The park is located in Golaghat, Nowgaon and Sontipur districts of Assam. A reserved forest was designated as Kaziranga in January 1908 and subsequently a game sanctuary in the year 1916, which was upgraded into a wildlife sanctuary in the year 1950 and finally as a National Park in 1974. Considering its rich biodiversity of birds, reptiles and mammals, the UNESCO, recently declared it a World Heritage Site. Following the addition of 428.98 sq.km. forest area recently, the total area of the park has increased to 858.91 sq. km. The park has four range offices at Agaratoli, Kohora, Baguri and Burapahar. While the first three govern the eastern, central and western ranges of the park respectively, the fourth oversees parts of the semi-hilly area adjoining the Karbi Anglong hill districts.

The climate is monsoonal with a mean annual rainfall of 1828mm, 90% of which is received between April and October. The annual floods inundate almost the whole of the alluvial plain habitat from June to October. During the dry season, the tall grassland is burnt by the park authorities to encourage the growth of lush young grass. The park constitutes mainly tall wet grasslands (64.02%) that make the habitat suitable for the rhino. Almost 28% of the park is occupied by woodland (mostly in the Agaratoli range) while water bodies constitute 8.03% of the

total area. In terms of vegetation, it is the elephant grass and other associated species which stand out as the most important flora of the area. Species such as *Imperata cylindrica*, *Arundo donax*, *Saccharum spontaneum*, *S. naranga*, *Phragmites karka*, *Erianthus ravanio* and *E. filfolius*, and *Cymbopogon* spp. constitute the main grass types. Aquatic vegetation, such as *Eichornia* spp., *Anthropogon* spp., *Ipomoea* spp., *Enydra* spp., *Pistia* spp., *Lomma* spp., *Nymphia* spp. and *Nelumba* spp., occupy the wetland niche, while the most predominant trees in the area are *Bombax ceiba*, *Lagerstroemia parviflora*, and *Albizia procera*.

1.2. Wildlife emergencies

The park lies in the flood plains of the river Brahmaputra, sandwiched between the river in the North and the National Highway in the South (Fig-right). The park also has plenty of low lying areas that hold water throughout the year (Fig-below). The river floods invariably every year submerging most of the park in flood waters, causing tremendous destruction to the wildlife in its wake. Scores of animals cross the National Highway trying to get away from the flood plains to the hills in an attempt to reach higher and safer ground. Many are either drowned or mowed down



Fig. Kaziranga National Park in Assam along the river Brahmaputra

by speeding vehicles as they cross the road. Young ones of rhino and elephant perish, and sometimes get swept away in the flood waters and get separated from the mother.

Map of Kaziranga National Park and Its Surrounding Area

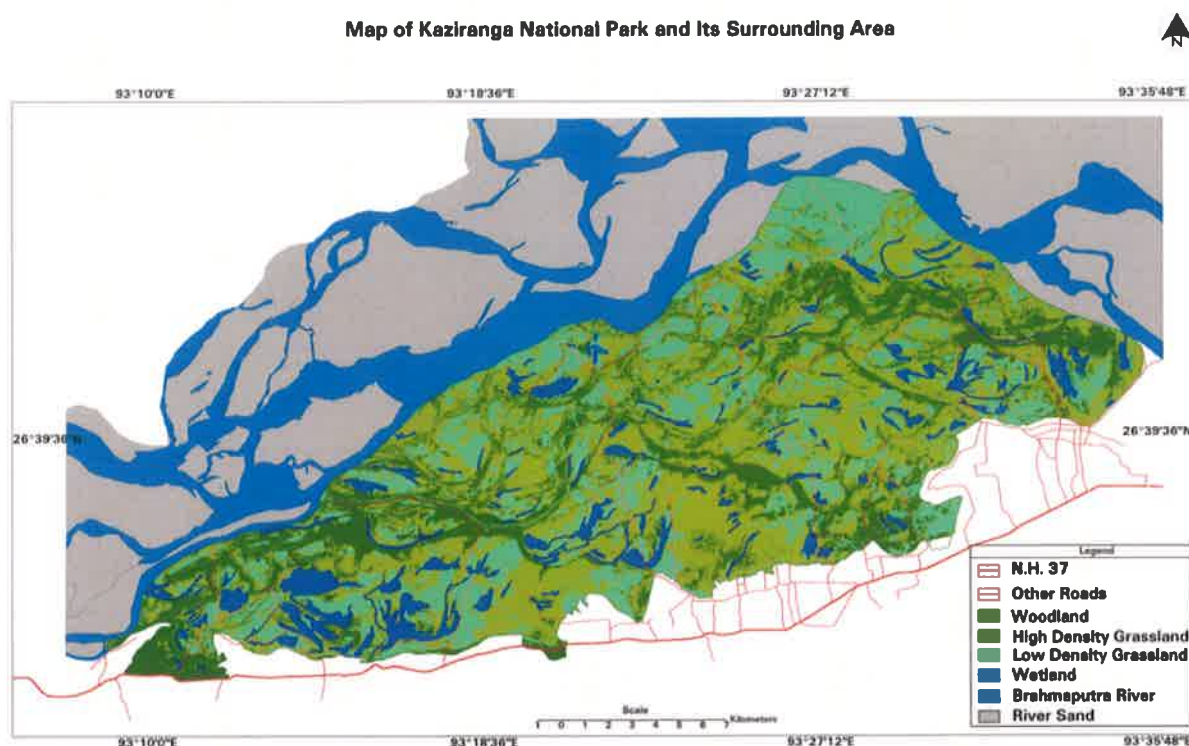


Fig. Vegetation type and distribution of water bodies in Kaziranga NP.

For years the forest staffs of Kaziranga have struggled with these displaced and injured animals, having to care for them with bare minimum resources and skills. While most of the injured animals died due to inadequate care, the few that survived were moved to the Assam State Zoo for lifetime care. There was little attempt to return the animal to its natural habitat.

Even before Kaziranga could recoup from the major floods that struck in 1998 which killed many deer, rhino and reptiles, floods devastated the park again in 2000. It is during this time that the Wildlife Trust of India (WTI) was contacted by the Forest Department and a Mobile Veterinary Service (MVS) unit along with a veterinarian was stationed in the park as part of WTI's Rapid Action Project. The MVS unit was to provide much needed emergency first aid and care to injured animals. Soon two elephant calves that could not be reunited into the natal herd had to be taken care of and had to be accommodated in makeshift facilities in the Bagori guest house of the park. This was the time when Mr. S. Bonal was the Director of KNP and it was under his tenure that the idea of establishing a rescue centre was conceptualized.

As the year went by another baby elephant was rescued and housed with the other elephant calves. Wildlife displacement due to floods, poaching, illegal wildlife trade and conflict with humans was on the rise and the number of cases being handled by WTI's veterinarian was steadily increasing. Neither was any rescue centre in place nor even any temporary enclosures available. It was obvious that a structure with facilities and infrastructure and staff to provide long term care to animals was the need of the hour.

In response to this urgent need WTI forged a partnership with the International Fund for Animal Welfare (IFAW) and the Assam Forest Department who were more than keen to establish a center to rehabilitate animals in crisis and distress. A Memorandum of Understanding was signed between the Government of Assam and WTI on 10th April 2001 to jointly set up the Centre for Wildlife Rehabilitation and Conservation (CWRC).

The aim of the centre was to rehabilitate displaced wild animals using appropriate protocols developed specifically for various species based on the available national and international guidelines on placement. The center was to function as a rehabilitation and veterinary skill unit and strive to achieve the following objectives:

- (a) Rescue temporarily disadvantaged wild animals, which have been confiscated, injured, maimed, orphaned, sick and/or gone astray
- (b) Not endanger the behavioural, conservation and health status of the rescued wild animals during the period of confinement, or in anyway diminish their rehabilitation potential
- (c) Promote ethical and humane methods of handling and managing wildlife while in captivity
- (d) Release animals back to the wild after determining their suitability, choosing an appropriate site and with post-release monitoring protocols in place.

1.3. Memorandum of Understanding

A Memorandum of Understanding (MoU) was signed on April 13th, 2001 at New Delhi, with Mr. Alok Jain, Principal Secretary, Forest department, Government of Assam and Mr. Vivek Menon, Executive Director, Wildlife Trust of India, as signatories representing the first and second parties respectively. The MoU stated that the center will be called the "Center for Wildlife Rehabilitation and Conservation (CWRC)" and will be managed by a "Governing Council" consisting of five

members from the Assam state forest department and four members from Wildlife Trust of India. Nominees from local governmental and non-governmental institutions will also have representations totaling a maximum of four members.

The collaboration with the local governmental institutions like the College of Veterinary Sciences, Assam Agricultural University and Department of Zoology, Animal ecology and Wildlife Biology, Gauhati University were also enlisted by way of their representation in the “Governing Council” of CWRC.

According to Article IV of the MoU, the ‘Governing Council’ shall determine the formulation of the policies, guidelines, rules and regulations and matters relating thereto of the center, overseeing the center and its entire programme, review of the progress of the implementation of the projects of the center from time to time, and also issue of suitable directions and advice to the center management. For this to happen, the ‘Governing Council’ met at least once a year. Since the establishment of CWRC in 2002, the council has met ten times.

1.4. Site selection and preparation

Commencing in June 2001, several visits were undertaken across the length and breadth of Assam, both to identify areas in order to concentrate Wildlife Trust of India’s rescue efforts and to make a shortlist of sites for assessment by a site selection committee. A site selection committee was finally constituted in October 2001 consisting of nominees from both parties. The committee visited all the four short-listed sites in November 2001:

1. Topatali, Sonapur taluk, Kamrup district
2. Hornbill Park, Morigaon district
3. Rani Garbanga, Guwahati, Kamrup district
4. Near Borjuri, Panbari Reserve Forest, Bokakhat

The prospective sites were evaluated based on selection criteria determined by the following attributes:

- Good drainage and run-off on ground
- Proximity to protected areas

- Minimal disease transmission risks
- Minimal risks from natural disasters like floods
- No security threats from anthropogenic factors
- Easy access to water, electricity and telecommunication facilities
- Suitability for development of enclosures, office buildings
- Easy access to national highways and other transport networks

Finally, an area near highway 37 in the Panbari Reserve Forest, opposite to Kaziranga National Park was earmarked as the location for establishing CWRC. Following the recommendation of the site selection committee, the Department of Environment and Forests, Government of Assam designated 3.05 hectares in the Panbari Reserve Forest lying adjacent to the Borjuri village, about six kilometers from the nearest town Bokakhat (Fig below).

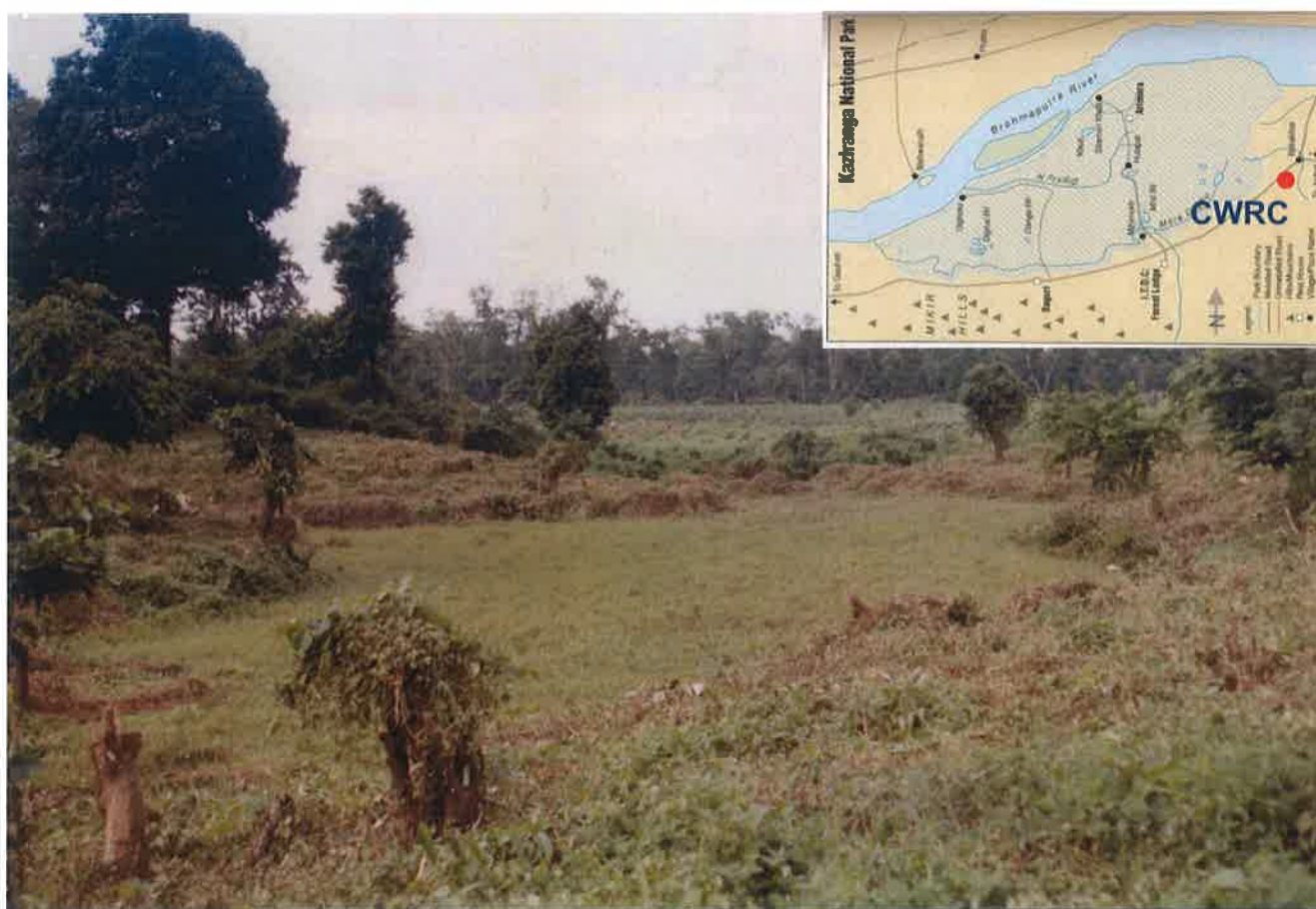


Fig. The land allotted for the establishment of CWRC in 2001. (Inset: Location of CWRC)

1.5. Establishment of CWRC

A team of experts in the area of enclosure design was identified and an enclosure design criteria finalized in January 2001. Pictures of the selected site showing the topography, terrain, and vegetation were circulated among the design committee members in February 2001. The site at Panbari RF near Kaziranga National Park was visited in March 2001 to prepare a site concept plan and recommend the site development activities for further action. A contour map of the vacant piece of land was prepared to facilitate the laying out of the design plans by the architect. A draft of the schematic drawings of the rescue center buildings and enclosures design was completed and approved by the members of the "Governing Council" in 2001. The layout consisted of the hospital cum staff facility in the centre and the animal enclosures around it. The animal shelters in clockwise order are: 1. Birds, 2. Primates, 3. Reptiles, 4. Ungulates, and 5. Carnivores. The built up area was initially restricted to an acre, so that the remaining area could be used for establishing large enclosures and paddocks to accommodate species like elephant, rhino, buffalo, deer and big cats (Fig below).

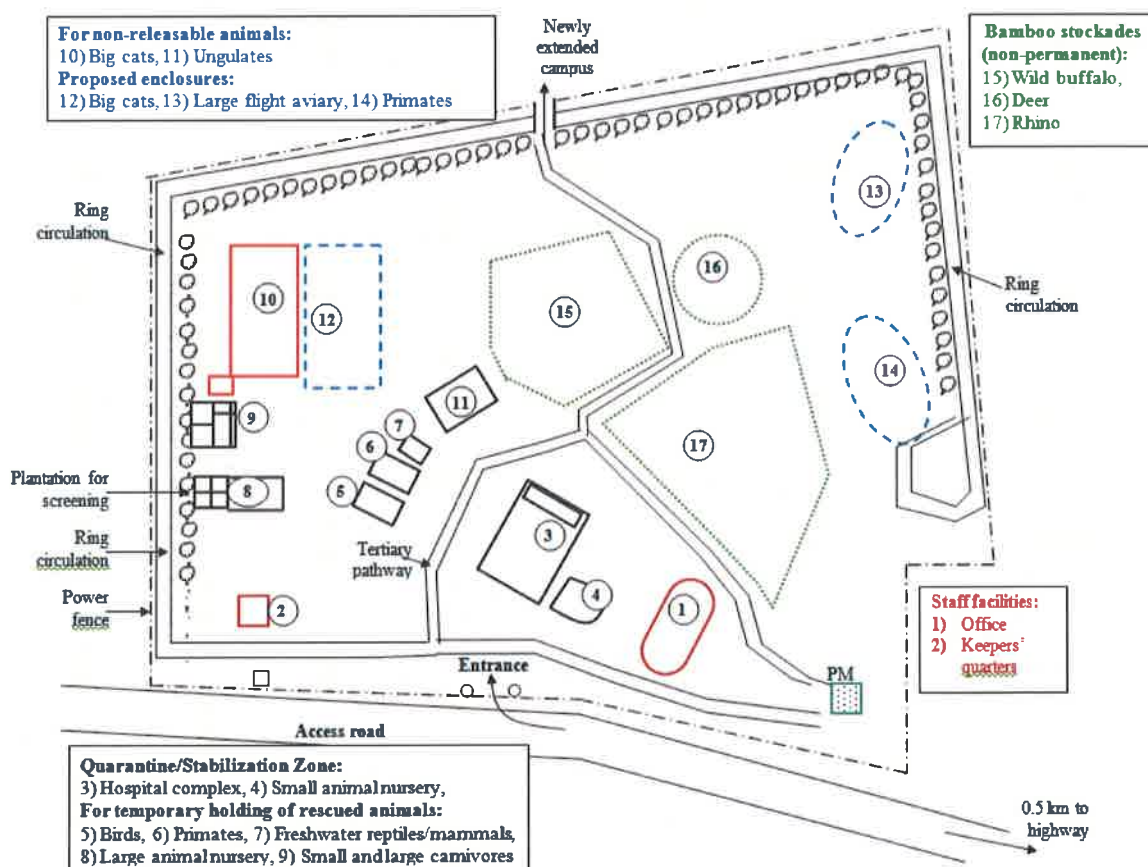


Fig. The present layout of the built up area of CWRC campus with all the facilities in place.

Mrs. Maneka Gandhi, the then minister of Government of India, was instrumental in ensuring that initial funding was made available through the Animal Welfare division's 'Provision of Shelter Houses' scheme. The construction began in October 2001 and was completed in June 2002. Within a year of initiating the construction, the centre was up and running. The centre's first admission was an adult female leopard trapped in Jorhat where it had come into conflict with people. The leopard was brought to CWRC, treated for traumatic injuries and then released.



Fig. The centre as it looked at the time of completion in June 2002

Though the centre became functional soon after the completion of work in June 2002, it could be officially inaugurated only in August. The Assam Forest Minister Mr. Pradyut Bordoloi inaugurated the CWRC, by lighting a ceremonial lamp on the 28th of August, 2002. The function was held at the CWRC premises in front of a large gathering comprising forest department personnel and many other local invitees. Dignitaries on the dais included the minister, CCF

(Wildlife) Mr. S. Doley, IFAW representative Mr. Kelvin Alie, WTI's Executive Director Mr. Vivek Menon, Kaziranga NP Director Mr. N.K. Vasu and WTI Trustee Mr. P.C. Bhattacharjee.

An additional set of facilities were created by keeping in mind the following requirements:

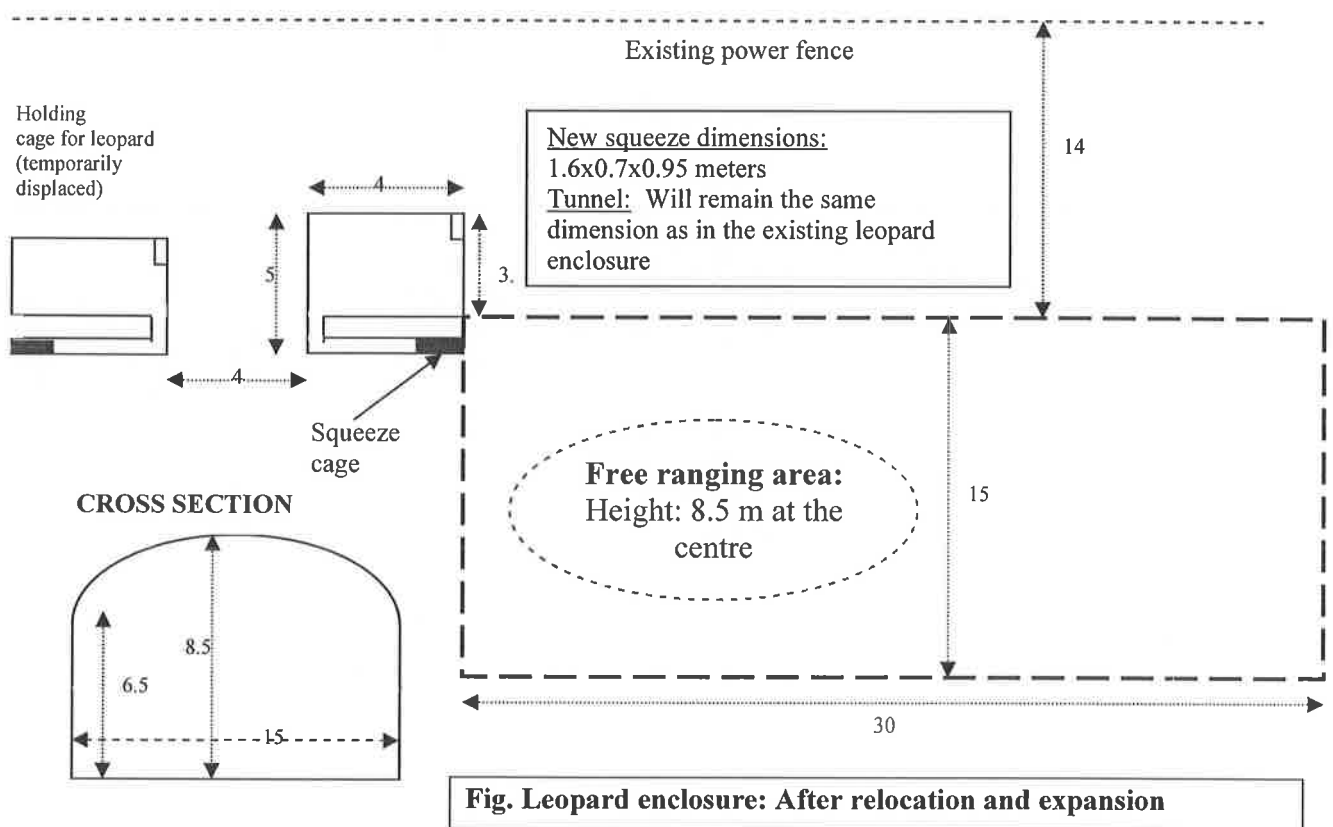
1. The premises needed to be more flexible to adapt to different needs of different species
2. The need to keep human areas away from animal zones
3. Long term projects like the elephant rehabilitation needed more stockades
4. Need for separate facilities for hand-raising large and small animals

(a) Road for service access: It was proposed to make a compacted metal road along the periphery of the CWRC campus. This would facilitate patrolling, servicing the fence and clearing the vegetation along the power fence. This has been completed and will now permit free movement of vehicles like jeep, earth movers, and truck within the campus. The mud road was of immense use during the rhino relocation program in January 2007 (Fig below). Huge cranes and trucks loaded with crated rhino were in operation and the road provided a smooth transit path.



Fig. The compacted road along the power fence

(b) Big cats enclosure: CWRC has two carnivore enclosures, one of which is a smaller section to accommodate temporarily displaced large and small carnivores. The holding cage of the leopard section is connected to a new large 500 m² enclosure (Fig below). This large enclosure can hold two leopards or one tiger. (Fig on page 13). There is also a 12 m² holding area for confining animals that need frequent veterinary care. This new facility can now accommodate three leopards or one or two tigers depending on their age and sex.



(c) Additional facilities

Due to lack of adequate facilities for hand-raising calves, cubs and chicks, the existing facilities like the animal clinics and retiring rooms were being used to house them. There was an urgent need to build separate facilities for stabilization and hand-raising calves of mega herbivores like rhinos.

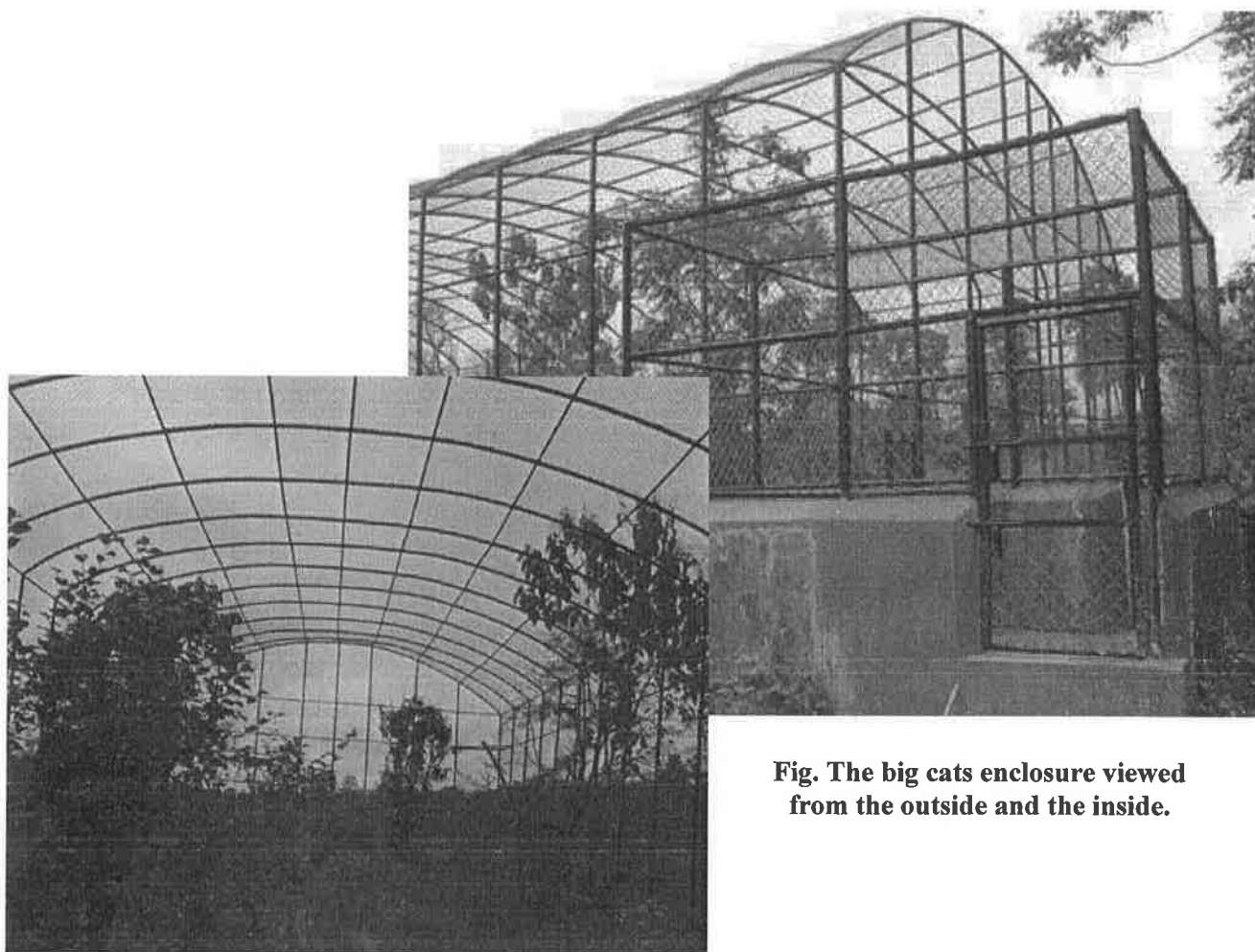


Fig. The big cats enclosure viewed from the outside and the inside.

d) Nursery for small animals:

The nursery for small animals is an extension of the main building and has been built adjoining the clinics. A ramp outside the nursery door would facilitate easy movement of animals along the corridor to the examination and surgery rooms (Fig above on page 14). There will be two sections in future, one with standard room temperature and other a thermoregulatory zone to accommodate species that require critical care. Platforms in the form of concrete slabs have been provided all around for placing tubs, incubators, boxes, etc (Fig below on page 14). It has been furnished with incubators and mini-enclosures. There are glass windows along the corridor for important visitors to see the animals being nursed without entering the room and disturbing the animals. As a future

plan, an adjoining 40 m² area of open space will be cordoned off for access to direct sunlight. Baby animals, especially reptiles could be moved to this outdoor section during the day.

Fig. Floor plan of the new small animal nursery with the main hall, ramp and corridor

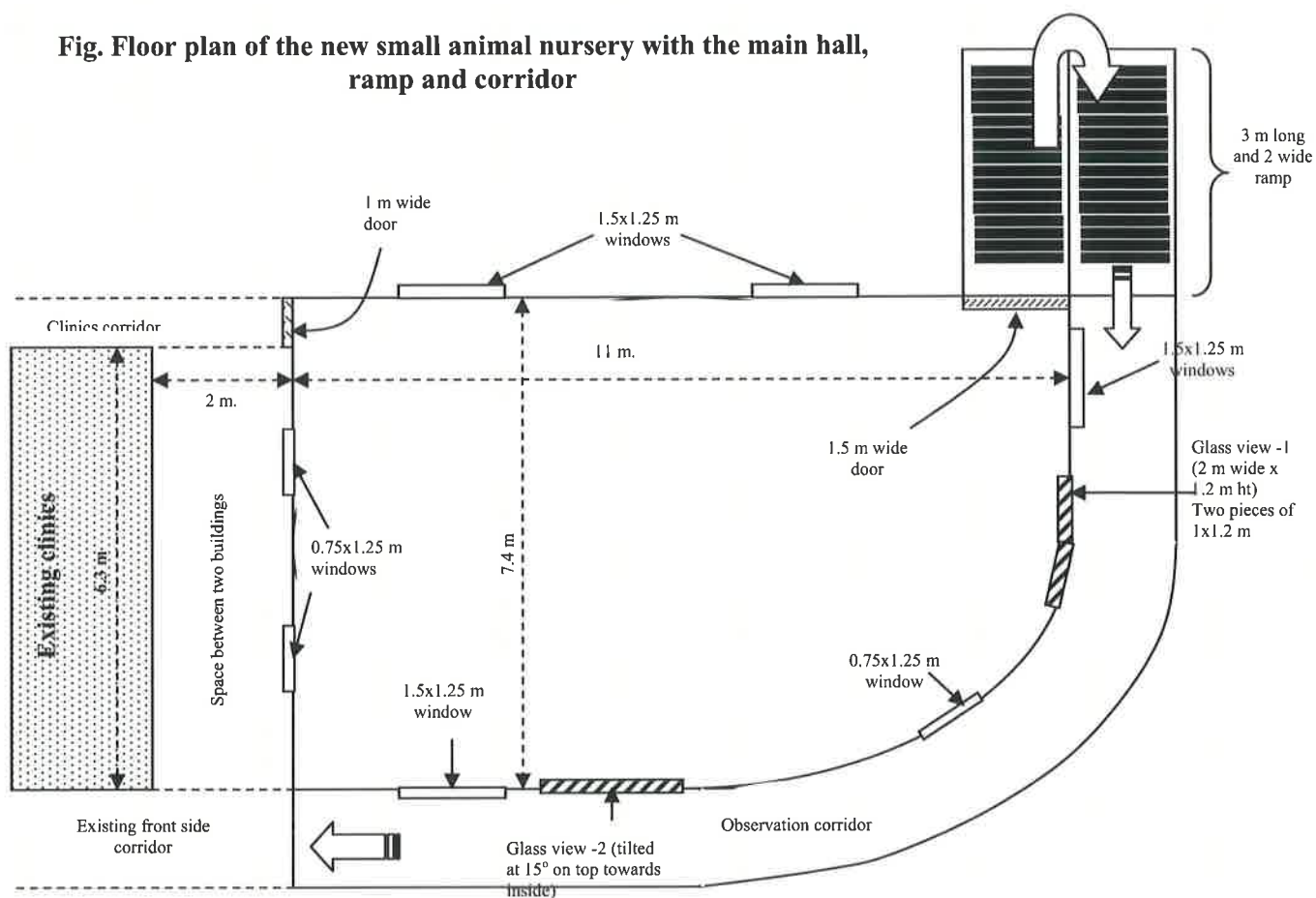


Fig. Small animals nursery at CWRC: view from outside (left) and inside (CWRC).

(e) Stabilization unit for elephant/rhino calves:

This facility has four well ventilated cubicles to accommodate an elephant calf in each (Fig right). The building is connected to a small paddock of 50 m² where the calves can be taken out for exercise and exposure to sunlight. The facility is well ventilated and has provisions for installing heaters during the winter (Fig 12). The unit has already been put into operation and all the elephant and rhino calves are stabilized here for about six months before they are taken to Panbari Reserve Forest for foraging.

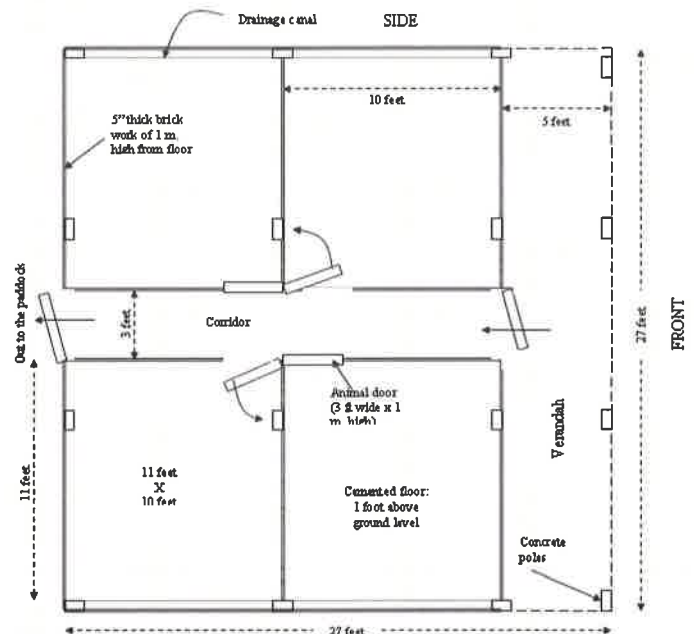


Fig. Layout of the stabilization facility for mega-herbivores.



Fig. The newly built nursery for hand-raising calves of elephant, rhino and buffalo.

(f) Office, retiring rooms and wards

The present office building is oval-shaped, with two divisions, one for office work and the other for accommodation (Fig below). There are two retiring rooms in the accommodation division where four people can stay. Now volunteers and duty veterinarians can stay at the centre away from the hospital complex. The two small retiring rooms in the hospital complex will be used for storing equipments and keeping animals under post-operative observation.



Fig. The office building with two retiring rooms for officers on duty at CWRC

1.6. Campus expansion and consolidation

Campus extension

During the past six years, while the number of holding facilities have gone up, the campus area has remained the same. Thanks to the government of Assam, an additional eight acres of land to the west of the existing campus has been added to CWRC in November 2007, thus making it a 15.4 acre campus (see contour map - Annexure 1). The newly added area will be exclusively considered an *ex-situ* acclimatization zone for mega-herbivores like elephant and rhinos. They remain there till they are completely weaned and ready to be moved to the release site for acclimatization and release.

This area has been only fenced and constructions have not yet come up here. Since the large animal nursery is already overcrowded, there is a need for a new nursery exclusively devoted for elephant calves. This additional area can then be entirely assigned for the management of elephant calves.

During the 9th and 10th governing council meetings of CWRC, a proposal to add another area of land lying opposite to the present campus was submitted. The council has already approved the proposal and the land is expected to be handed over to the CWRC management soon. The facilities being planned include an interpretation cum education centre and a captive elephant management and training school.

Other enclosures in the pipeline:

New structures to be built in the old campus would be a large aviary to accommodate birds that need protracted care, a large primate enclosure to house species like gibbon that need large space for swinging and an additional big cat enclosure to accommodate non-releasable cats (refer Fig on page 9).

1.7. Satellite centres of CWRC

Both legal and logistical considerations have prompted the institution of satellite center of CWRC. Though Assam is a small state, the geographical features like rivers, and political divisions like autonomous councils have forced the CWRC to initiate the placement of few Mobile Veterinary Units (MVS) in different regions of the state. Besides, the Wildlife Protection Act 1972 authorized the Protected Area (PA) managers to put in place required veterinary infrastructure including posting of veterinarians, so that emergency health care to wildlife in need is provided. However, in actual practice, PA managers are unable to meet this requirement due to lack of trained wildlife veterinarians and the infrastructure needed to attend to emergencies in remote far-flung regions. In order to address these lacunae, WTI has instituted



Fig: MVS units play a major role in attending to emergencies.

satellite stations in the form of MVS units in Assam.

The operation of MVSs in key areas of the country has emerged as a highly efficient and cost effective solution to the issue of wildlife emergencies. That apart, the mere presence of the veterinary service ambulance in rural areas has the effect of spreading

awareness amongst the rural populace, the message of conservation and humane treatment of wild animals in distress. The MVS clinics function under the concept that animals estranged from their natural habitat, either due to human interference or by accident, must be given every chance to return to their natural habitat.

MVS units have been placed in Chakrashila WLS, Kokrajhar to cover the BTC area, near Dibru Saikhowa NP to cover Upper Assam and at Diphu to attend to wildlife emergencies of Karbi Anglong. Future plans are to initiate two more units, one for covering the North Bank and the

other to cover southern Assam (Fig below). These MVS units serve as feeders to CWRC. Only cases that require critical care are moved here, while others that require only brief period of intervention will be handled there itself, before they are released back to the wild. Prescribed guidelines on rehabilitation and reintroduction are followed before taking a decision on the placement option.

Animals that cannot be released will either be transferred to the Guwahati Zoo or moved to CWRC following the Chief Wildlife Warden's notification that they will henceforth be resigned to captivity. Only these non-releasable animals that are moved to CWRC will be brought into the CZA inventory.

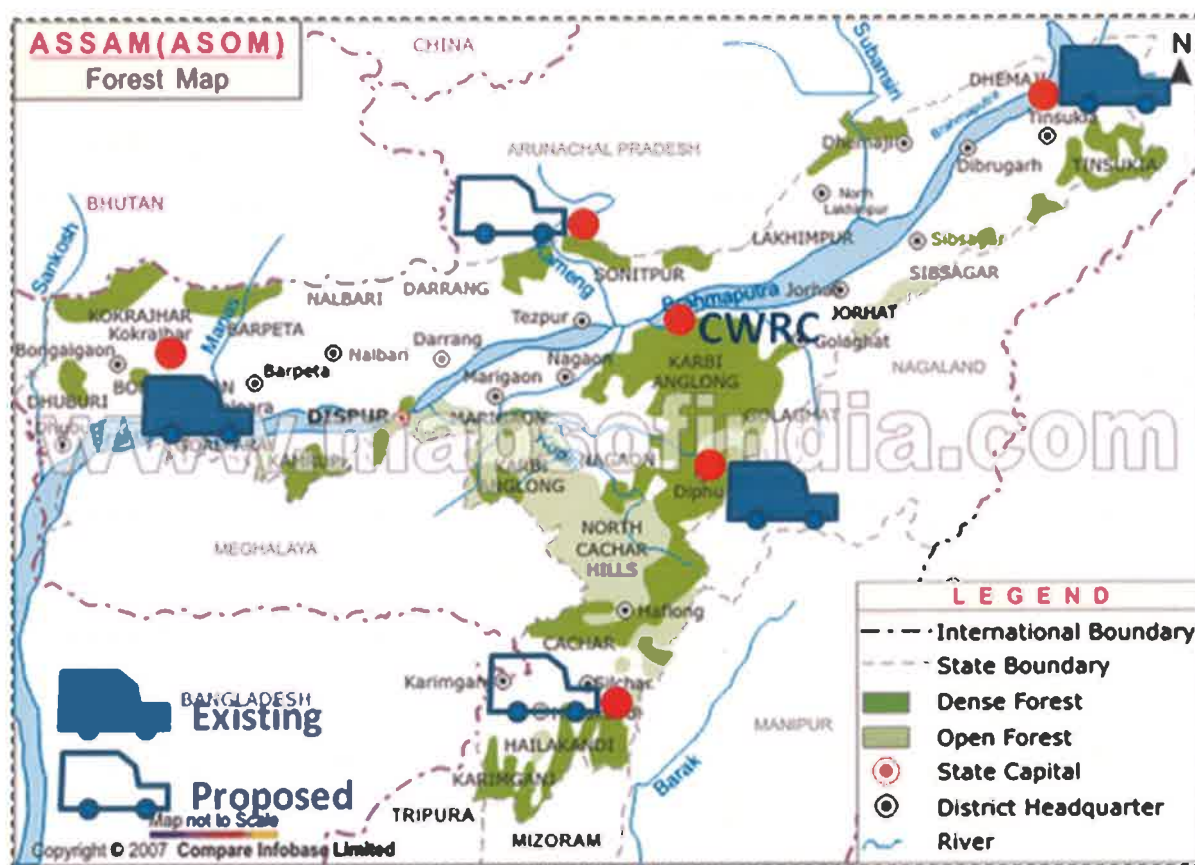


Fig: Location of the existing and proposed mobile units supporting CWRC in Assam

All these satellite centres have the potential to become “Transit Homes” of CWRC in the future. Depending on the case load and kind of species being attended to, there is every possibility of these locations developing into a full-fledged rehab centre. These centres will be considered

purely as satellite centres of CWRC and will fall under the overall prerogative of CWRC's Governing Council. These satellite centres when established would have a few enclosures for temporary accommodation of reptiles, aquatic species, large carnivores, birds, ungulates and burrowing beasts. The possibility of having some of these enclosures has already been realized in the case of the satellite MVS unit stationed at Kokrajhar, BTC. Next to CWRC (central Assam) this unit receives the maximum number of cases. The case load at this centre has gone up steadily from less than 50 in 2006-07 to over 200 in 2009-2010 (Fig below).

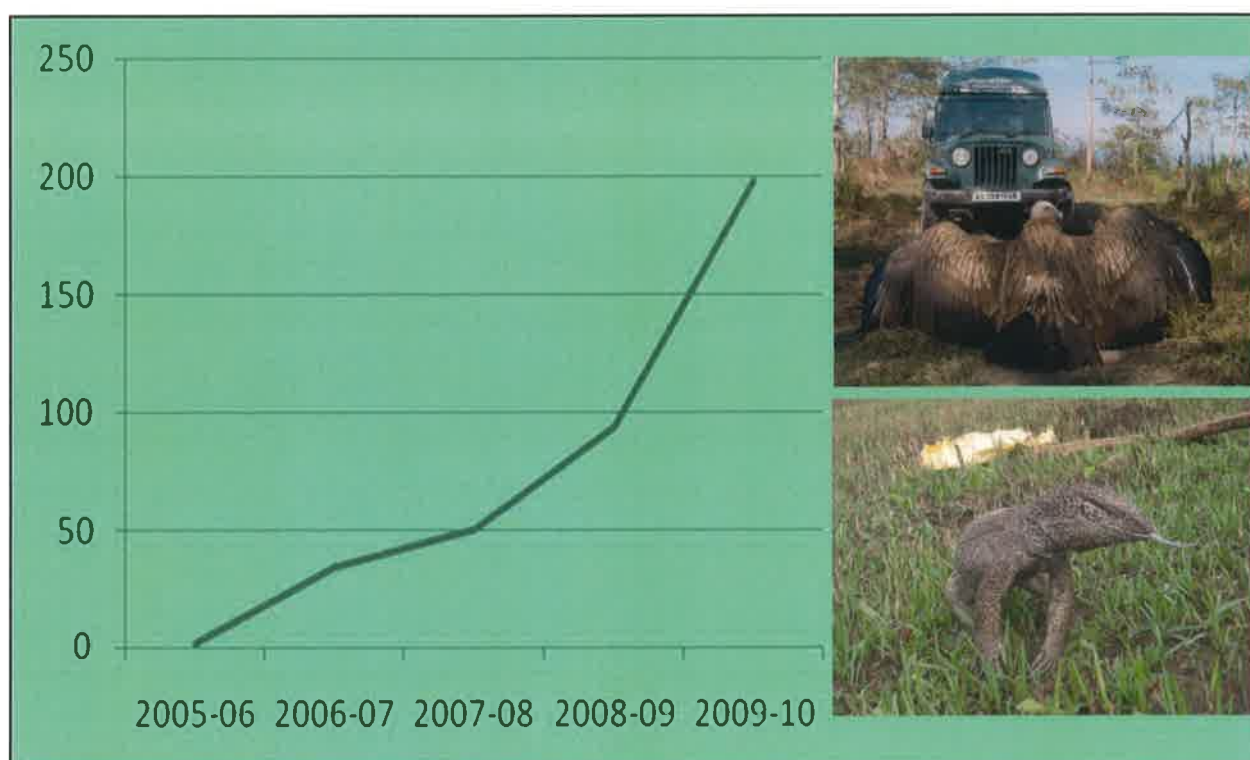


Fig: Number of cases attended by the Lower Assam MVS unit of CWRC stationed at Kokrajhar

References:

- Agoramoorthy, G. 1998.** Rehabilitation and Captive management of endangered species in a wildlife rescue center in Taiwan. *International Zoo Year Book*. 45(2):71-77
- Karesh, W.B. 1995.** Wildlife Rehabilitation: Additional considerations for developing countries. *Journal of Zoo and Wildlife Medicine*. 26(1):2-9

2. Present arrangements and constraints

2.1. Present functionaries of CWRC

a) Animal section

Every effort is made to address the wildlife displacement issue in-situ and it is only when efforts to reunite the young with the parents fail or when the animal bears injuries that need critical care, that they are brought to the centre. Records of all animals brought into the centre for rehabilitation are maintained in the following registers: (i) Animal entry register, (ii) Treatment register, (iii) Feeding register, (iv) Anesthesia records, (v) Laboratory investigation register, (vi) Release register and (vi) Carcass disposal register.

b) Store and feed section

There are two animal kitchens, one solely for preparation of milk for all species of wildlife orphans, and the other for preparing the concentrate diet for all mega-herbivores like rhinos, elephants and wild buffalos. A store room is attached to both these kitchens. Milk formulas are prepared in the nursery for a diversity of species ranging from some of the smallest mammalian species like the parti-coloured flying squirrel to large mammalian species like the Asian elephant. Concentrate mix are prepared for rhinos, elephants and ungulates like buffalos and deer. For carnivores, beef and chicken are preserved in deep freezers and given the next day as these items are supplied only on alternate days. For feeding insectivorous birds and small mammals, insects are collected from the surrounding reserve forests and agricultural fields.

c) Construction and maintenance

The maintenance at CWRC could be broadly classified into the following heads: (i) periodic replacement of bio-degradable materials like bamboo, (ii) painting of corrosive non-galvanized iron structures, (iii) maintenance of the boundary fence (solar power fence), and (iv) maintenance of campus and buildings.

- CWRC has three large stockades to accommodate large herbivore calves. The bamboo barrier is replaced every two years. When the calves grow up, the fence is reinforced with live wires to discourage them from bulldozing through. The holding sections or confinement zones of all stabilization enclosures are covered with grass thatch which is also replaced every two years.

- The MS pipes, corrugated sheets and chainlink mesh are prone to get rusted with time. These are repainted as and when signs of rust become evident.
- Solar fencing systems need constant maintenance which include replacement of the batteries, repairing the energizers and repositioning of the support angles whenever they get damaged.
- The campus is maintained by a dedicated pair of sweepers. The present extent of the campus is 6.3 hectares, nearly 50% of which is the old campus where all the structures are in place.

d) Solid and liquid waste disposal

Solid wastes like faeces, dung and leftovers of food are manually removed and deposited in a pit dug outside the campus.

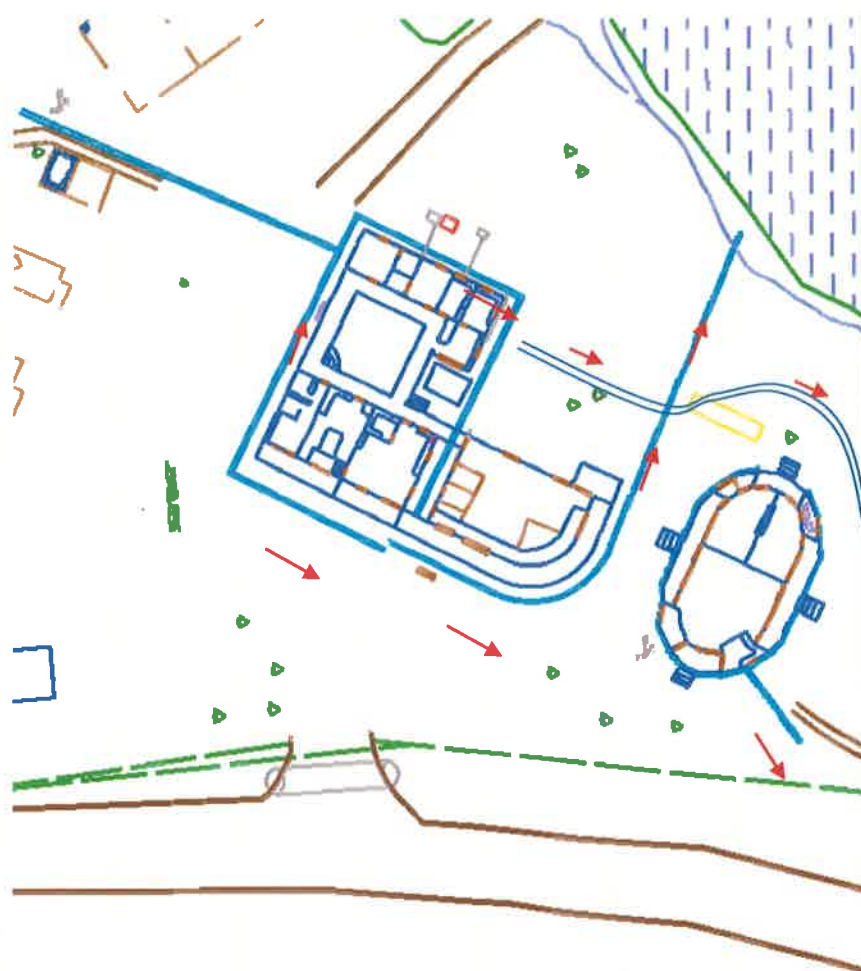


Fig: Drainage system marked in blue. Red arrows indicate the direction of flow.

After completion of autopsy procedures, animal carcasses are either incinerated or buried. While small birds are incinerated, the large bodied carcasses are buried. Carcass disposals are carried out only after duly intimating the Forest Department.

A separate drainage system drains all the liquid waste that originate from holding areas, hospital, office and animal kitchen, and also the small and large animal nurseries (Fig left)

e) Research

Though CWRC is not research oriented, a scientific approach is adopted in all procedures whether it is wildlife nutrition, deciding on the placement option of an animal, choosing a release site, post-release monitoring or veterinary care. Currently there is only passive research, even though there is plenty of scope for active research as it is done in the case of radio-tracking studies to determine post-release survival of rehabilitated animals. Following research projects have been undertaken at CWRC during the past 10 years.

(a) Post-release monitoring studies

1. Post-release monitoring of Asian elephants in Manas National Park
2. Post-release survival of three rehabilitated one-horned rhinos in Manas NP
3. Post-release survival of three Asiatic black bears in Manas NP



Fig: A rhino radio-collared (left) and monitored after its release in Manas NP (right).

(b) Disease threats and prevalence studies

1. Pasteurellosis epidemic among wild buffalos in Kaziranga NP
2. Tuberculosis prevalence among hand-raised elephant calves
3. Prevalence of parasite oval among hand-raised elephant and rhino calves
4. Secondary poisoning as a major threat to vultures in Assam

(c) Future research opportunities

1. Surveillance of emerging diseases threatening humans and wildlife
2. Seroprevalence of infectious diseases in ungulates of KNP
3. Evolving a suitable milk formulae for elephants, rhinos and small carnivores

f) Education and awareness

As a rehabilitation centre, CWRC is not open to lay public. However the centre attracts numerous students, trainees, volunteers and conservationists from time to time. In order to cater to their needs, there is a series of display panels in place near the small animal nursery depicting the activities and achievements of the centre.

The CWRC governing council has approved the addition of the vacant land opposite to the present campus. This area is being planned for the establishment of an interpretation centre in future.



Fig: Interpretive panels on CWRC's activities and achievements

The operation of MVSs in key areas of the country has emerged as a highly efficient and cost effective solution to the issue of wildlife emergencies. That apart, the mere presence of the veterinary service ambulance in rural areas has the effect of spreading awareness amongst the rural populace, the message of conservation and humane treatment of wild animals in distress.

g) Veterinary section



Since the goal of the Wild Rescue program of Wildlife Trust of India is to address the health and welfare needs of wildlife, there is special focus on the the veterinary section at CWRC. The infrastructure could be broadly divided into four: (i) Examination room, (ii) Surgery room, (iii) Laboratory, and (iv) Quarantine holdings.



CWRC has two full time veterinarians, one attending to wildlife emergencies reported from Central Assam and North Bank, and the other responsible for the care and treatment of those admitted to the centre. Besides these two, every satellite station has a Mobile Veterinary Service (MVS) unit lead by a trained veterinarian.

The veterinary section is equipped with all the basic stuff including the remote drug delivery systems, squeeze cages for large carnivores, crates for ungulates, big cats and birds, restraint equipments for snakes and also surgical equipments. The centre will soon be equipped with X-ray and ultrasound machines.



The surgery room is something special, with surgical table being brought to the ground level to get over the problem of lifting the animal every time.

Fig (from top to bottom): Special ground-level surgical table, crate, squeeze cage and immobilization equipments.

There is a postmortem room located at an isolated corner of the campus. The facility has a good drainage which does not mix with any of the other drains of CWRC.

h) Other activities peculiar to CWRC

Elephant health camps: The Govt. of Assam hosts annual elephant festival in the Kaziranga National park every year since 2003. The event is held in January coinciding with the harvest festival of the state “*Bihu*”. Since 2003, CWRC vets have been organizing a health camp for all



Fig: CWRC vets posing in front of the elephants in 2005.

the elephants that come to the fair every year. In 2003, 300 elephants attended the mela, and information on 211 was collected. The attendance has been rather poor in the subsequent years, with the numbers ranging from 27 to 52 elephants every year. All the camps have been conducted in partnership with the International Fund for Animal Welfare

(IFAW) and with the cooperation and support of the Department of

Environment and Forests, Govt. of Assam. All elephants are administered dewormers during the occasion and their ailments addressed by the veterinarians.

Microchipping captive elephants:

The Govt. of Assam decided to begin micro-chipping all captive elephants in the year 2003. The proposal to implant microchips in all elephants is a Project Elephant initiative taken up in the year 2002. Department of Environment and Forests issued notices to elephant owners to declare



Fig: Michrochip number read with a transponder reader

highlands of Karbi Anglong hills across the national highway. Since the park is sandwiched between the river in the north and the highway in the south, the animals have no other option than crossing this major highway to reach the higher elevations (Fig). Compounding this problem is the presence of curious onlookers living in settlements across the road. Stranded animals are sometimes chased by anxious residents for kilometers to “rescue” them which, contrary to what they intend results in mortalities or severe injuries to many of them.

The Kaziranga flooding is not an unexpected event as its arrival can be predicted with some accuracy in advance. This helps the park authorities to have a flood action plan in place and prepare in advance to meet the calamity. CWRC was established primarily to deal with the flood victims.

Some of the activities undertaken in advance include:

1. Publication and distribution of pamphlets to the vehicle drivers at Jakhalabandha and Bokakhat
2. Orientation and training of Forest Department Staff and volunteers about animal handling at CWRC
3. Public meeting at selected / targeted villages to generate awareness
4. Patrolling along with park authorities to give a safe passage to the migrating animals and preventing capture and chasing as and when needed.

2.2. Collection plan

CWRC was established with the objective of providing emergency relief to wildlife in distress, be it temporarily or permanently displaced animals. Along with functioning as a rehabilitation and veterinary skill unit, available 24x7 to the cause of wildlife, the veterinarians also take part in various wildlife health support programs. The activities of CWRC and its associated satellite MVS units could be brought under the following categories:

CWRC: Activities



- ☐ **Swiftly responding to wildlife emergencies due to calamities**
- ☐ **Rehabilitation of wild animals displaced due to various reasons**
- ☐ **Assisting the Forest Department in conflict animal management**
- ☐ **Veterinary care to captive elephants of the Forest Department**
- ☐ **Disease investigation operations during epidemics & sporadic deaths**
- ☐ **Protecting wildlife from livestock diseases through immunization**

Since attending to wildlife in crisis and distress is the main objective of the project, the centre has no control and choice over the species being admitted for critical care. The priority is to return the animals to the wild following the standard protocols that are available. According to the IUCN guidelines on the placement of confiscated animals, there are three options for confiscated species: (i) Release back to the wild, (ii) Captivity, (iii) Euthanasia. The situation is the same for rescued animals as well.

Wildlife Trust of India's ten years experience with rescue and rehabilitation in Assam has shown that about 61% of the animals brought into the centre get released within 48 hours of arrival. Another 25% get released within a month (Fig below). Rehabilitation centers have such a high turnover of animals when compared to zoos and about 30% of them die during critical care itself. These records are maintained separately and presented during the Governing Council meetings held half-yearly. Thus at CWRC, a rehabilitation centre, only those individuals that fail to meet the criteria laid down for their release to the wild will be brought into the CZA records.

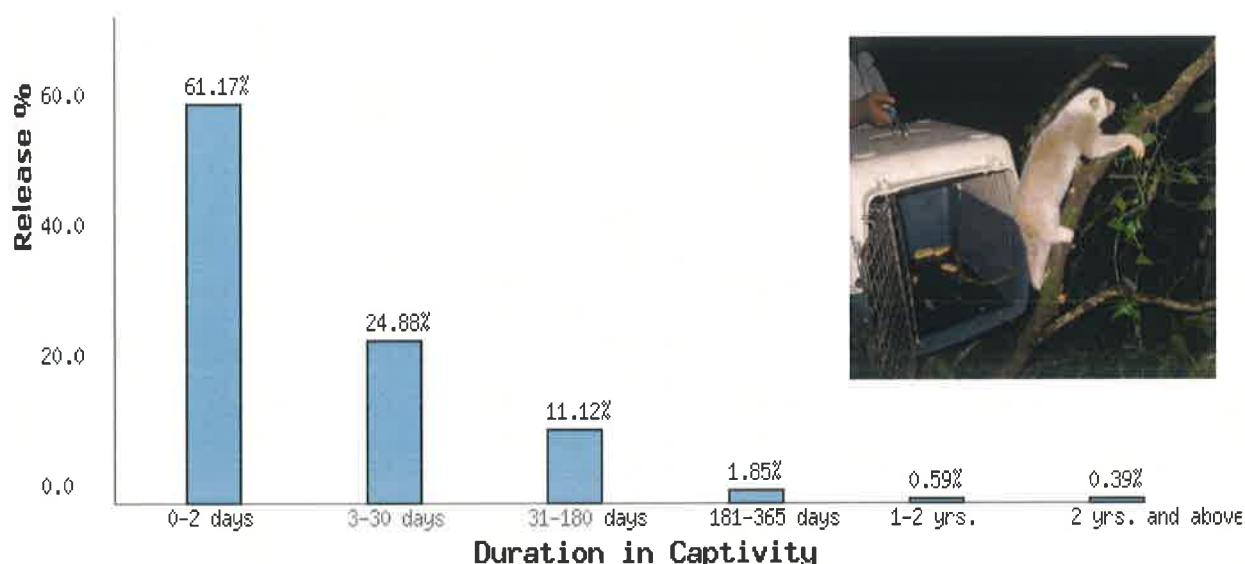


Fig: More than 60% of the animals get released within 48 hours of admission and about 25% within a month

The list of non-releasable animals will be informed to the Project Leader and the Chief Wildlife Warden of the state and will then be brought into the stock of resident animals at CWRC. According to the Wildlife Protection Act (1972), Amendment of Section 11 (section 11 of the principal Act, in sub-section 1), it is mentioned that no captured animal shall be kept in captivity unless the Chief Wildlife Warden is satisfied that such animal cannot be rehabilitated in the wild and the reasons for the same are recorded in writing. True to the spirit of this wildlife law, no animal shall be resigned to captivity without making every effort to rehabilitate it back to the wild.

Since CWRC is not a lifetime care facility, all animals designated for lifetime care will be moved to a recognized facility (zoo, breeding centre etc.) following the permission of the CZA and the Chief Wildlife Warden of the state. The following table gives an indication of the species resident at CWRC and the species transferred to other facilities in the recent past. Two of the common species transferred to lifetime care centers and breeding centers are the common leopards and vultures (Fig below).

1. Mission, aims and objectives

The CWRC is run by the Wildlife Trust of India (WTI) in partnership with the Department of Environment and Forests, Government of Assam and is truly in line with WTI's mission, which is *"to conserve nature, especially endangered species and threatened habitats, in partnership with communities and governments"*. This fits well with WTI's overall vision of securing the natural heritage of India. CWRC is one of the several projects under the "Wild Rescue" program of WTI, which is recognized as the rehabilitation and veterinary skill unit of the organization. The goal of Wild Rescue program is *"to address the health and welfare needs of wild animals"*. This goal is realized through the following three aims:

1. To provide emergency relief to wildlife in distress and rehabilitate displaced wildlife
2. To provide veterinary expertise to manage free living wildlife and
3. To provide ethical and humane treatment to wild animals in captivity

All these three aims are part of CWRC's project objectives as seen from the list of objectives or activities undertaken by the rehabilitation centre and its satellite MVS units across the state of Assam:

CWRC: Activities



- ☐ **Swiftly responding to wildlife emergencies due to calamities**
- ☐ **Rehabilitation of wild animals displaced due to various reasons**
- ☐ **Assisting the Forest Department in conflict animal management**
- ☐ **Veterinary care to captive elephants of the Forest Department**
- ☐ **Disease investigation operations during epidemics & sporadic deaths**
- ☐ **Protecting wildlife from livestock diseases through immunization**

2. Action plan for the future

2.1. Proposed changes in collection plan, in any

Since CWRC is not a zoo where animals are displayed for public view, it does not go on a collection spree. It is not a lifetime care facility either, and for this reason, only few animals that fail to get rehabilitated to the wild are held in captivity, and that too only till they are moved to a suitable lifetime care centre. Wildlife Trust of India recognizes rehabilitation as “Treatment and temporary care of injured, orphaned and misplaced indigenous wildlife and the subsequent replacement of those cases back into the natural environment” and does not consider, the keeping of wildlife for lifetime care, in rescue centres as ‘rehabilitation’, as many organizations would refer to and actually do.

Sometimes animals lose their rehabilitation potential for various reasons and they will have to be accommodated till they are moved out to a zoo, breeding centre or a lifetime care centre. As mentioned in Part-I, the centre has no control over the species being brought into the centre and its satellite units, as the goal is to address the health and welfare needs of all wildlife species, particularly birds, mammals and reptiles. Keeping with CWRC’s definition of wildlife rehabilitation, animals with no rehabilitation potential or species whose rehabilitation is not recommended (e.g. leopard) will not be admitted to the centre. However they may be temporarily admitted on welfare and humane grounds till the animal can be moved to a suitable lifetime care facility. Thus only such non-releasable animals will be brought into the CZA collection plan since other animals are temporarily displaced and as mentioned in Part-1, 80% of those cases admitted, get released within a month of their admission. In other words, at any given period of time only about 1-2% of the animals become non-releasable and thus require protracted care at CWRC.

An analysis of the admission records of the last ten years of emergency relief and rehabilitation activities in CWRC, Assam, has revealed that the following are the species, most commonly brought into the permanent collection records of CWRC:

1. Big cats (Common leopard and Bengal tiger)
2. Raptors (diurnal birds of prey and nocturnal owls)
3. Confiscated species of snakes

Therefore, it is only for these groups of animals that CWRC has enclosures or plans to have enclosures as per CZA standards. All other enclosures will be for holding animals temporarily, either in nurseries or in stabilization holdings or stockades before they are released back to the wild.

2.2. Layout plan of CWRC

The present 6.3 hectare campus consists of two equally divided parts, one behind the other. All the built up facilities like the office, quarters, quarantine cages, hospital, nurseries, including the makeshift stockades, are in the main old campus of 3.05 hectares. The campus is thematically divided into three zones:

- (i) **Human Zone:** This is the zone of intense human activity where officials, dignitaries and personnel working in the project are permitted. The structures in this zone include the office, retiring rooms, human kitchen, keepers' quarters, toilets and the necropsy room in a corner. This area is less than one acre. Only vehicles that carry animals or their rations are permitted to enter this zone. Otherwise parking is permitted only outside the campus.
- (ii) **Stabilization Zone:** Immediately behind the human zone is the one acre stabilization zone containing the hospital complex surrounded by a series of five quarantine holdings. The two nurseries, one meant for small animals and the other for large mammals are also located in this zone. Only keepers, project personnel and visiting experts have access to this zone. There is a bamboo screen which separates the stabilization zone from the human zone.
- (iii) **Rehabilitation zone:** The remaining 5.4 acre area in the old campus and the additional 8 acres behind, together comprise the rehab zone. This is also called the '*ex-situ* acclimatization zone' where hand-raised orphans are held under various stages of rehab till they are moved to their release sites. One section of this zone is devoted to house non-releasable animals like big cats, raptors and reptiles. This zone at present

contains three makeshift bamboo paddocks, a small carnivore enclosure complex and a large big cat enclosure.

Annexure 1 is the contour map of the entire 15.5 acre (6.3 hectares) area showing the layout of all these facilities including all the landscape features like low lying areas, forest patches, natural drainage, service circulation and amenities, approach road to the zoo and paths, administrative buildings, veterinary hospital, keeper quarters, surrounding areas, rail etc. A diagrammatic illustration of the old campus given below illustrates the layout of the rescue centre:

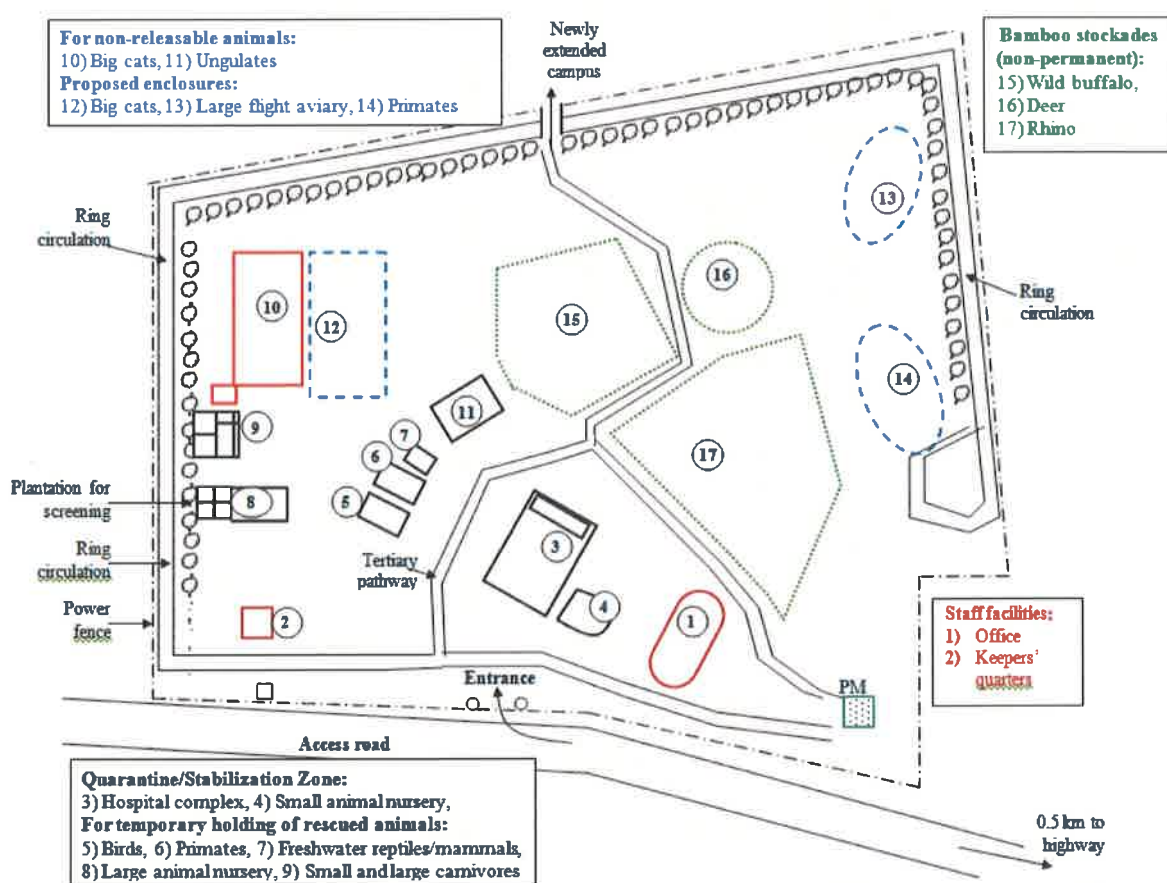


Fig: Schematic illustration of the existing built up structures at CWRC old campus

Circulation system: Since the facility is not open to visitors, the circulation system is simple and caters to three basic requirements: (i) the CWRC staff for feeding and cleaning (ii) movement of vehicles to transfer animals and fodder and (iii) taking special visitors. There is a peripheral ring circulation which takes care of the vehicular movement and visitor needs, and the tertiary pathways that cut through the landscape across the contours meet the keeper needs.

Work staff needs: There is a large office room where all records are maintained and where small meetings can be held. This complex has a twin room accommodation, one specifically for the officer on duty and the other for volunteers and interns. This facility also has a kitchen where volunteers and staff can prepare their own food. The keepers on night duty have a dormitory for themselves. Two of them stay there permanently. This facility was built with the support received from MP LAD funds of Government of India.

Enclosures: The enclosures and the support facilities have already been dealt in great detail in the Introduction section. Structurally the enclosures could be grouped into three:

- (i) Stabilization or quarantine holdings for accommodating temporarily displaced wildlife
- (ii) Makeshift paddocks to hold the calves of large herbivores after stabilization
- (iii) Enclosures for keeping non-releasable animals. Two or three new enclosures are being planned to be built for holding such animals.

2.3. Proposals for the future

(i) Screening from public and villagers: The centre is not open to visitors and there are signboards indicating this placed right in front of the entrance itself. While this keeps away visitors who sometimes mistake CWRC for a zoo, the mushrooming of huts just outside the premises towards the Borjuri village side is a matter of concern to the management. The plan to plant some shrubs along the peripheral circulation (see layout on the previous page) has not been realized yet. Apart from this initiative, a long stretch of densely woven *netlan* will be erected all along the electric fence as an effective way to screen the animals from curious onlookers from the settlement side.

(ii) New facilities within the old campus: As shown in the schematic illustration above, three new enclosures are being planned for the future (numbered 12, 13 and 14 and marked in red-dotted lines). Two of these enclosures are primarily meant for accommodating animals under rehab and the other one a lifetime care facility for big cats. The lifetime care enclosure will be built adjoining the present one in order to have a separate enclosure for leopard and tiger. The other two enclosures are for birds and primates. The older enclosures for primates and birds in the stabilization zone are for accommodating temporarily displaced individuals. With the construction of the two large ones as designed below, injured birds and primates that require a

protracted care before they can be assessed for release could be accommodated. The centre has been lacking a decent flight exercise area for birds.

With two holding sections attached to the new primate enclosure, one will be able to hold lesser primates like slow loris (see Fig on the next page). Similarly, the twin holding compartments of the aviary can accommodate smaller birds that require stabilization and temporary care. While the barrier for the aviary will be strong nylon netting held with the support of MS poles, the barrier in the primate enclosure will be chainlink mesh or stainless steel netting held up by MS poles and steel cables secured by pulleys to the ground by grouting in concrete.

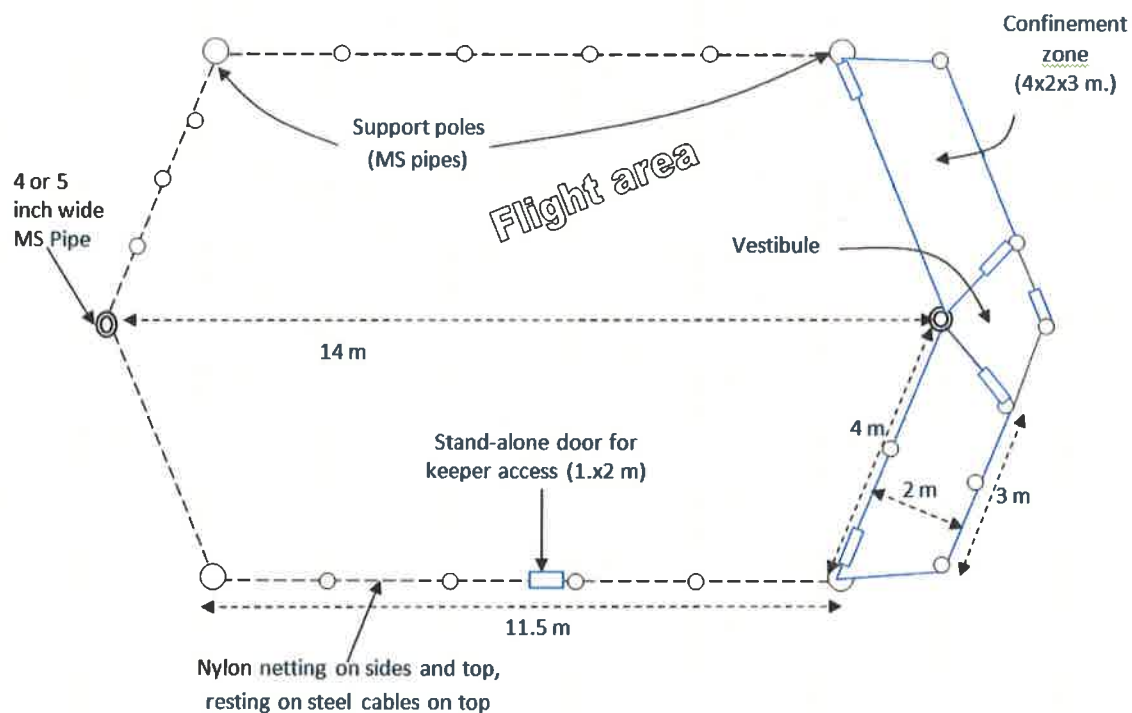


Fig: A schematic layout of the proposed aviary to be built at CWRC

A nursery for hand-raising: There is an urgent need for building a nursery dedicated to elephants alone. The present large animal nursery can accommodate only four calves and this space is used for rhinos and buffalos as well. With at least four elephant calves being admitted to the centre every year (besides two or three rhino and buffalo calves), the present space has proved to be inadequate. With the new campus being devoted to elephants, it would be fitting to build a nursery right next to it (see Annexure 1). The new facility will be able to accommodate six

elephant calves at a time. There will be a milk preparation cum storage room, a corridor and a room for keeper to stay.

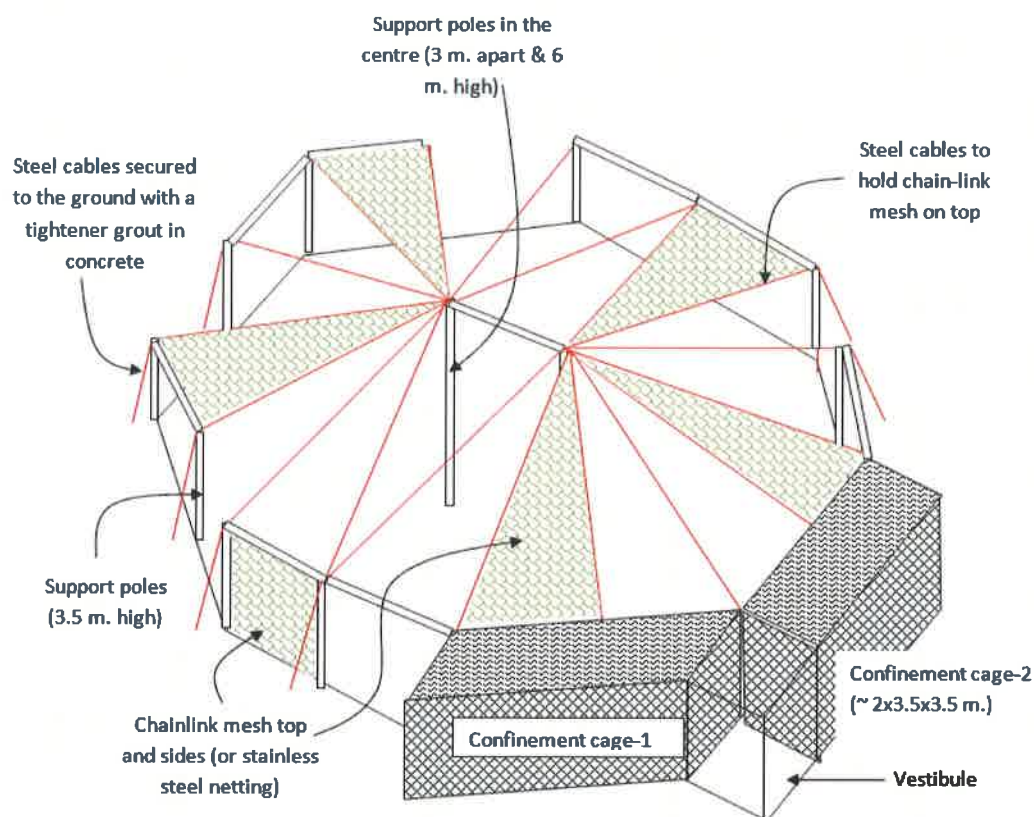


Fig: A schematic view of the primate complex for temporary holding of rescued animals.

A cemented-flooring is necessary for all the large animal nurseries taking into account the sanitary conditions required to keep the area free of pathogens like Salmonella which proved to be a menace in the past. However, the floors will be topped with wooden planks raised few inches off the floor to protect the calves from cold weather. The bags of bedding materials being currently employed will be placed over these wooden planks.

(iii) New facilities in the new campus: Annexure 1 shows the new campus which lies just behind the old one. This area is currently used only by elephant calves and will continue to be so in future as well. Since elephants require a large area of free ranging space, the entire 8 acres has been designated for this purpose. The land has patches of standing trees and scattered shrubs. The following facilities are being planned here:

- ❖ **Water tank:** Since elephant calves need to be bathed regularly, there will be a water tank with gentle slopes for them to go in. There will be a bore-well as well nearby as the source of water supply to the tank. The tank will be for elephant calves less than 18 months of age.
- ❖ **Bamboo stockade:** Like in the existing large animal nursery, there will be a twin stockade made of bamboo poles as an exercise area for the calves during the stabilization period.

(iv) Proposed extension land and facilities therein: About 8.6 acres (3.47 hectares) of the degraded land opposite to the present CWRC campus has been shortlisted for considering it as an extension of the CWRC campus. The Governing Council of CWRC has already approved this proposal and only the paperwork formalities remain to be completed before this area can be fenced and brought into the CWRC fold. The area will have an interpretation station for CWRC, a centre for elephant welfare and a hostel for trainees and interns. The following facilities are being planned there:

- ❖ **Interpretation centre:** Currently visitors are being discouraged from entering the premises as it would affect the rehabilitation potentials of wildlife under care at the centre. The only formal interpretation program in place is the series of information panels that highlight the activities of the centre. Since the proposed extension land lies on the opposite side of the present campus, visitors can be permitted to enter for an interpretive tour. The interpretation zone to be built here could include an open-air amphitheater, interpretive panels highlighting the history of Kaziranga National Park and CWRC. A model interpretation station has been illustrated on the next page.
- ❖ **Elephant school:** A large part of the extension campus will be designated for activities pertaining to captive elephant welfare. Facilities here would include an outdoor clinic for treating captive elephants and a training centre on elephant management. There will be a *kraal* or treatment arena for captive elephants, a classroom for teaching, a food preparation room, a security guard room and a bore-well with motor pumps and pipelines.
- ❖ **Conference room:** With CWRC attracting many volunteers and students every year, and with the plans to establish an elephant school, the centre is bound to hold small workshops and seminars in the future. The new extension land lying opposite to the

CWRC old campus is ideally suited for such activities as it would not disturb the animals under rehabilitation. This conference room must be able to accommodate at least 75-100 people comfortably.

- ❖ **Training centre:** The centre is at present open to volunteers who apart from learning a few lessons, also contribute to the husbandry of the animals under care. The growing demand of volunteers to work at CWRC, from countries across the globe, has only shown that there is a possibility of starting organized certificate or diploma courses on wildlife rehabilitation annually. The plan is to begin a short term certificate course in the year 2016-2017. This means establishing a trainees' hostel and increasing the staff strength.



Fig: A view of a simple interpretation centre at the orangutan rehab centre in Borneo

- ❖ **Wildlife health surveillance:** In recent years, new diseases have emerged due to increased contact between humans and wildlife. The emergence of *nipah* virus from fruit bats, SAARS virus from palm civets, Kyasanur Forest disease from common langurs, and H1B1 virus from birds have only gone on to show that both humans and wildlife are bound to suffer with increasing human-wildlife interactions. With more than 200 cases of wild animals being attended by CWRC vets every year, the centre is strategically placed to take up studies on surveillance of potential pathogens. The task

would include the identification of pathogen reservoirs through constant disease surveillance to predict in advance the potential emerging diseases. This would involve not only the capacity building of our veterinarians but also the establishment of a basic storage and disease investigation laboratory. The new extension area would have ample space for creating this facility to store the samples.

To summarize, CWRC requires the following facilities in the coming years to realize the envisioned plan:

Location	No	Proposed facility	Year of construction
Old campus	1	Big cats enclosure	2012
	2	Free flight aviary	2011
	3	Primate corner	2011
	4	Elephant nursery	2010
New campus	2	Water tank	2011
Extension (Proposed campus extension, opp. land)	1	Interpretation centre	2011
	2	Elephant school	2011-12
	3	Elephant treatment yard	2012
	4	Disease surveillance unit	2013
	5	Conference hall	2014
	6	Trainees hostel	2017

(v) Developments in satellite units: As mentioned earlier in the Introduction section in Part-I, the satellite MVS unit of CWRC in Lower Assam, stationed at Kokhrajhar (see figure below) has the potential to develop into a full-fledged facility of its own, considering the increasing number of threatened taxa being brought in. With the commissioning of the autonomous council (Bodoland Territorial Council – BTC) there, this move is likely to gain momentum.

The CWRC transit home at Charaikhola, Kokrajhar will only have transit enclosures like the stabilization holdings at CWRC, Kaziranga meant for housing temporarily displaced wildlife. These enclosures are not meant for lifetime care, and any non-releasable requiring protracted care will be moved to a CZA recognized lifetime care centre or to CWRC which has the facilities

for accommodating such animals. Some of the facilities being planned at the Lower Assam satellite centre at Charaikhola include the following:

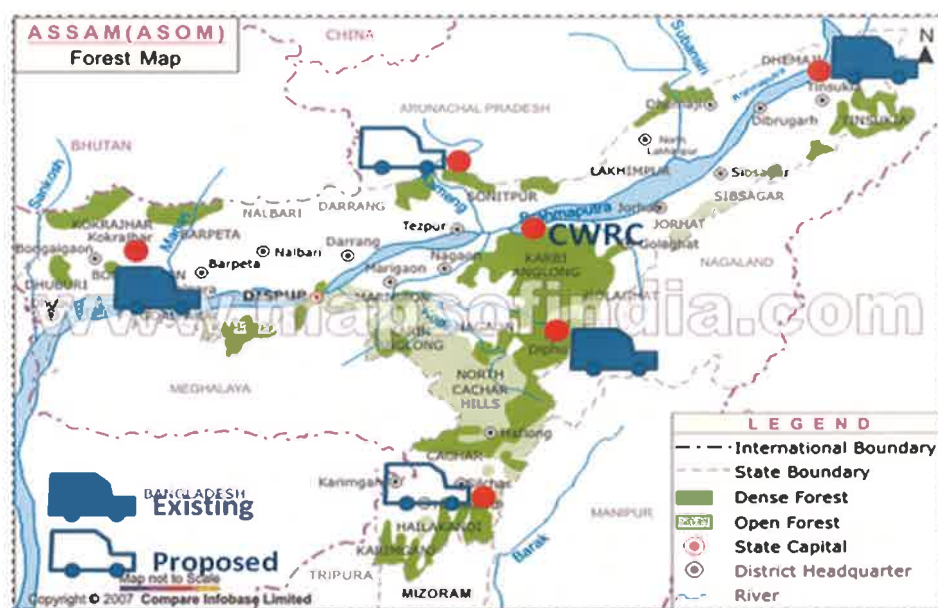


Fig: Distribution of the present and proposed satellite units of CWRC

1. A carnivore complex to accommodate small carnivores and leopard
2. A multispecies facility to accommodate mammals and birds with amphibious habits
3. A herpetarium for accommodating snakes and burrowing animals
4. An ungulate enclosure with a stockade attached to it
5. A primate enclosure with twin holding cages
6. An aviary for raptors and storks, with twin sections to accommodate small birds as well

All these above facilities are being planned for completion in 2010. These will be built by the BTC government and the facility will soon be used by the WTI staff operating in the Lower Assam area as part of the CWRC satellite station network.

The other MVS units will also follow suit with the establishment of temporary holding cages like in Kokrajhar. By 2016, the Upper Assam MVS unit is designated to have three transit enclosures, each for accommodating leopards, birds of prey and small carnivores respectively. By 2018, two enclosures to accommodate birds and reptiles are being planned for the North Bank MVS unit. The choice of enclosures is based on the most commonly rescued species of animals from these areas.

number of staff who have been trained so far on various disciplines of wildlife rehab and health management:

No	Year	Place	Course or Subject	No trained
1	2003	South Africa	Wildlife Rehabilitation course	2
2	2003	Kenya	Elephant / Rhino rehabilitation	2
3	2004	USA	Wildlife rehabilitation medicine	1
3	2005	Russia	Bear rehabilitation	2
4	2008	Germany	Captive elephant medicine and management	1
5	2009	Jersey	Endangered Species Management course	1
Proposed training programs				
6	2010	To be identified	Rehabilitation medicine and record keeping	1
7	2011	South Africa	Capture and Translocation	1
8	2011	USA	Wildlife pathology	1
9	2012	Europe	Ultrasonography and Radiology	1
10	2016	Guwahati Zoo	Zoo keeper's training	2
11	2017	To be identified	Disease surveillance	1
12		South Africa	Capture and translocation	2
13		To be identified	Radio-tracking	2
14	2018	Guwahati Zoo	Keepers' training course	2

Besides these international trainings, both biologists and veterinarians working with CWRC have been exposed to various workshops and resource materials available on the concerned subject matter. The keepers have been regularly trained at the Guwahati zoo under the auspices of the CZA sponsored keeper training course. Almost all the keepers at CWRC have been trained at Guwahati Zoo. While the vets get to learn from experiences when they come to CWRC as volunteers, specialists are sometimes called in to train and share their experiences. Three such trainings conducted include:

- (i) Capture and restrain of snakes – By Mr. Romulus Whitaker in 2008
- (ii) Postmortem procedures for wildlife vets – By Dr. A. Chakraborty in 2008
- (iii) Biological samples collection and preservation procedures – By Dr. James Desmond.

5. Contingency plan to address emergencies

5.1. Dealing with animal escapes

Animal escapes are unavoidable in zoos and more so in rehabilitation centers where animals are brought in without any prior intimation to the staff. The enclosures at CWRC are therefore appropriately designed to accommodate any species. All temporary holdings in the Stabilization or Quarantine zone have a double-door vestibule where keepers can enter without any danger of the animal escaping through the doors when they enter in. In some cases, the section adjoining the vestibule acts as a “crush” for the restraint of mammalian groups like cervids (see illustration below).

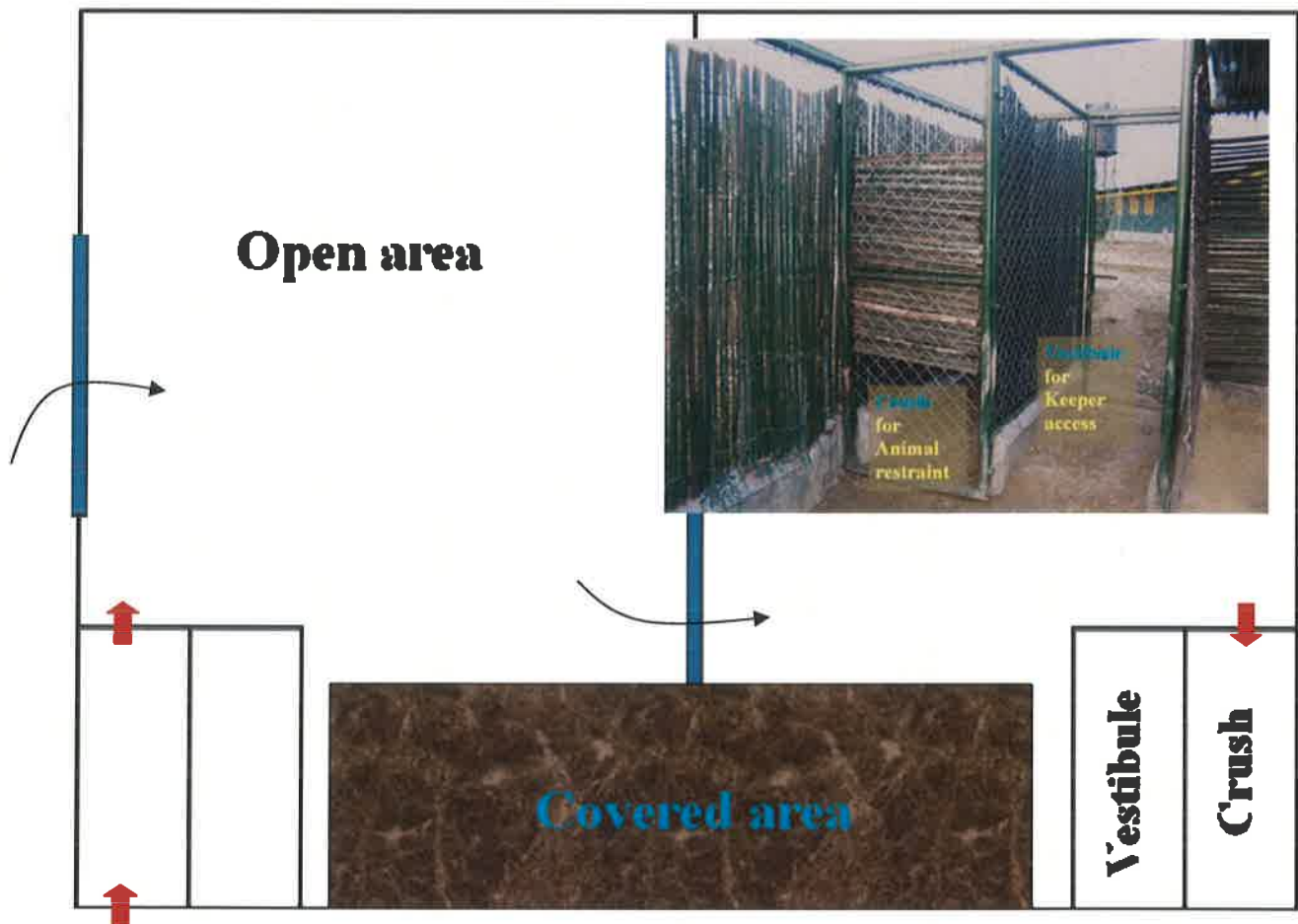


Fig: An example of the vestibule in one of the stabilization holdings at CWRC.

Like in any other wildlife rehab centre, the following logical outcomes are possible for animals admitted to the centre:

- Release after treatment or stabilization
- Death during care
- Euthanasia
- Transfer to another facility
- Escape

The last in the list is “Escape”, the most undesirable outcome any captive wildlife centre would like to encounter.

The animals that manage to escape could be brought under two categories:

1. Animals that have spent considerable amount of time at the centre
2. Animals newly brought in and have not yet established themselves at the centre

The greater challenge lies in bringing back the animals belonging to the latter category as they cannot be lured back into the cage. Animals that have spent a long period of time in captivity prefer to go back to their enclosures, either after their day out or after being lured to return. As they are familiar to their particular surrounding, they would prefer the familiarity of their enclosure to the fear and confusion that they encounter outside.

Since CWRC is a not a zoo where visitors frequent, crowd control or visitor control is not an issue at all. Though the protocol of dealing with animal escape would depend on the species involved, the following are the broad guidelines for dealing with animal escapes at the centre.

- ❖ **Seal all escape routes.** CWRC is fenced with a solar fence which is operated 24x7. The fence can take care of large mammals above the size of a barking deer.
- ❖ **Rectify the escape door:** If the animal had escaped through gaps in chainlink mesh or through the door which was kept open by mistake, these defaults and loopholes will be immediately attended to, in order to prevent further escapes.

❖ **Rescue team:** Form a rapid response team, headed by the centre veterinarian and ably assisted by the concerned keeper, and other support staff including trackers and a sharp shooter who joins the team later.

❖ **Equipment for recapture:** The rescue team will be equipped with baffle-boards, drug delivery systems for chemical capture, nets, crates, flash light, fire arm and a vehicle.

❖ **Monitoring the animal:** No animal will be actively pursued as it would complicate matters due to

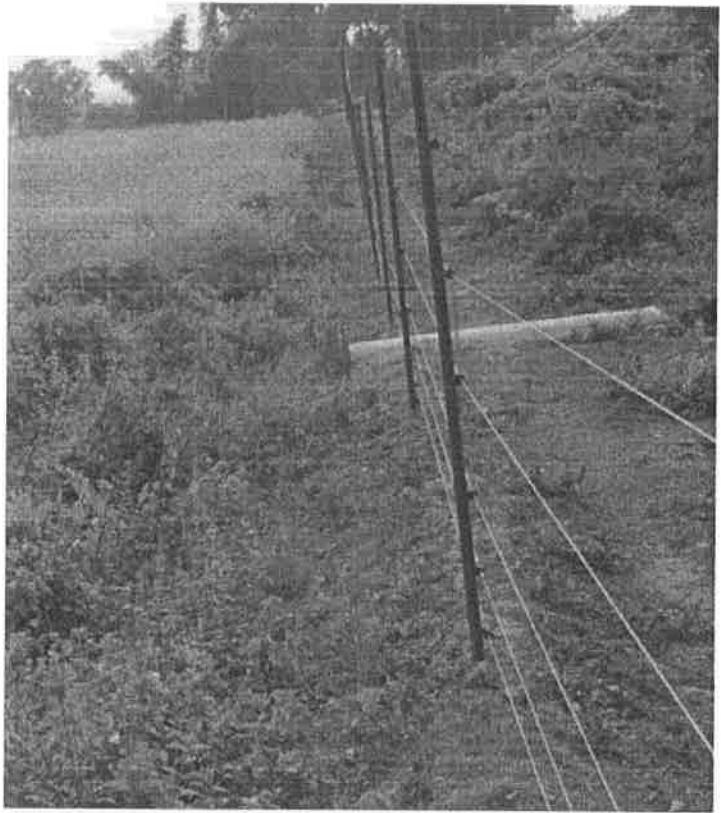


Fig: Power fence, the boundary at CWRC

fright response from the animal. Each animal's flight distance will be duly taken into consideration, especially when targeting the animal for chemical capture.

❖ **Homing instinct:** Permanently displaced animals will have a binding to their home and will return to their enclosures if given a choice. They will be coaxed with food to lure them back to their abode. The keeper who has been looking after the animal will be given the responsibility of luring the animal back.

❖ **Safety of the handling staff:** The staff may carry baffle-boards with them while dealing with bears and big cats. At no time will the safety of the handlers be compromised upon.

❖ **Safety of the animal:** The safety of the animal will also be paramount while all the methods are being employed to recapture the animal. Only after calming down the otherwise excited animal will any effort be made to recapture it. The keepers are cautioned at all times to avoid using overt physical methods to capture or subdue the animal. If the animal is not creating any havoc, patience should be the norm.

- ❖ **Confinement:** Species like primates, leopards, tigers, clouded leopards and barking deer will be confined or cornered to a particular place before they can be darted with a remote delivery system.
- ❖ **Updating the protocol:** Once the operation is over, a review of all the procedures followed would be made, to learn from the positives and negatives of the operation.

5.2. Monkey or dog menace

The CWRC campus is located in Panbari RF near Kaziranga National Park. The reserve forest is inhabited by capped langurs and less commonly by stray gibbons. Surprisingly no rhesus macaques have been sighted in the nearby forest so far, though it is a common 'nuisance' in the Bokakhat town which is only 5 km away from the centre. The centre receives many cases of rhesus macaque displacements that happen due to conflict with people in the town. There is a distant possibility of rhesus macaques taking advantage of the greenery coming up inside the campus. As of now, only jungle fowls have been seen to frequent the campus in the morning hours of the day.



Fig: An injured rhesus macaque admitted to centre

Though there is a village nearby (Borjuri Village), no instance of any stray dog entering the campus has been reported so far. The power fence is good enough to keep dogs away.

5.3. Snake bites

King cobra, Indian cobra, Russel's viper, saw-scaled viper and many species of pit vipers are reported from Assam and they are all venomous in varying degrees. The genetic distinctiveness of these animals have resulted in the standard anti-venom prepared by institutes like Haffkin's Institute at Bombay and King's Institute at Chennai being ineffective in this part of the world. Only first aid facilities are being made available to the staff at CWRC.

5.4. Food when there is strike

Hartals or *Bandhs* are common in Assam and no week goes without a strike in some part or the other in Assam. This no doubt disrupts the mobility of the vehicles, including the supply of red meat (beef) at times. The contingency plan during such instances is to buy chicken which is locally available at Bokhakat. All other food materials are purchased locally and these do not get affected during strikes. Since the state of Assam is gifted with plenty of greenery, fodder (browse and graze) is collected by a dedicated two member team.

5.5. Infighting between animals

In spite of taking all precautions, infighting between two inmates is a possibility. Infighting could be of two categories: i) Between animals sharing the same enclosure, and (ii) Between animals housed in the adjoining enclosures. In the case of the latter, preemptive measures would include ensuring the barrier between two adjoining enclosures being foolproof. Where there is one common chainlink mesh between enclosures, adequate care will be taken to see that the mesh size does not permit the animals to push their paws through them (see Fig below). Additionally, a strong layer of bamboo screen would be in place to prevent such accidents from



Fig: Bamboo-woven thatch screen in a bear enclosure at CWRC.

happening.

When infighting is noticed within inmates housed in the same enclosure, immediate plan would be to separate the individuals by

- ❖ confining one to the holding area (in the case of carnivores)
- ❖ moving one of the animals, often the injured one, to the confinement zone (in the case of birds)
- ❖ distracting the animals if personnel are present at the time of the incident

In addition, to prevent or reduce the chances of infighting among inmates

- ❖ animals will be mixed only after gradually acclimatizing them to each other through auditory, visual and tactile habituations.
- ❖ only individuals found to be compatible after this acclimatization would be housed together.
- ❖ drug-immobilization of one of the animals would be considered an option only after ensuring the safety of the immobilized animal from the other.

5.6. Epidemics

No disease of epidemic proportions have been reported so far from the rehab centre at CWRC and its associated satellite units. During 2002-2004, there were concerns of Salmonella organisms causing deaths in young elephant calves during the period of convalescence and stabilization after rescue. This however has not been reported since then. Disease outbreaks can be anticipated at CWRC and its satellite stations among species held in large numbers for a long period of time. These would include elephant calves, rhino calves, leopards, lesser cats, vultures, storks, ducks etc. The following contingency measures would be in place during such unexpected disease outbreaks:

- ❖ Immediately isolate the affected animals and house them away from the rest
- ❖ Ensure disease control measures in place
- ❖ Ensure prompt diagnosis and treatment of affected individuals
- ❖ Should situation become serious, consider euthanasia of affected animals with the prior permission of the Chief Wildlife Warden

- ❖ Ensure that the animals are immunized against these diseases beforehand to avoid recurrence in future

5.7. Power breakdown

Like any other forest area in the country, power supply is not regular and is often interrupted by reasons beyond control. Regular power shutdowns are manageable, but sometimes power supply is disrupted for three to four days at stretch. There is a dedicated generator which is pressed into service whenever required. The motor pump and deep freezers need power backups and this has been taken care at CWRC. However, there is a need for a heavy duty generator in future should the centre be involved in the collection and preservation of clinical and biological materials for pathogen surveillance.



Fig: Flooded approach road to CWRC during 2003 flash floods. Inset: Elephant calves enjoying flood waters in the paddocks.

6. E-governance

For faster and effective communication and for facilitating instant transfer of information on various aspects of wildlife rescue and rehabilitation, both governance and database maintenance are done through electronic network.

6.1. Communication

All communications between Delhi headquarters and the CWRC staff in the field is invariably



through the electronic email network. The centre near Kaziranga has a dedicated internet access through which effective communication is established on a regular basis. Weekly, monthly and quarterly reports are sent through email. In fact this is the only quick and effective communication tool with staff working in remote areas of Assam. All staffs have been provided with a laptop of their own to enable them to maintain an electronic version of all communications, prepare reports and maintain data in excel sheets. They meet periodically at Guwahati and update the regional coordinator on

the project developments by submitting reports, statement of accounts and photographs in electronic format. These reports are then sent to the headquarters by email and copies of the relevant ones to the Chief Wildlife Warden of the state and the Conservators and/or Project Leader.

6.2. Online rescue database

There is often lack of data on the number of animals handled, rehabilitated and released at rescue and rehab centres. This is also an impediment in measuring the success of rehabilitation. From rescue to release, recording the success at every stage is important. With veterinarians working in

different parts of Assam and maintaining their own records in their laptops, it would be a difficult proposition to access their data from any given place. Wildlife Trust of India has therefore developed an online software where the rehabilitators can enter the details of every new case (like rescue, admission, species, examination and outcome) simultaneously. A snapshot of the main page of this online database has been shown below.

Fig: Snapshot of the first page of online rescue database software.

The online software has been programmed to generate reports, project-wise, species-wise, class-wise, and on the success of rehabilitation in terms of release percentage, mortality percentage etc. With the help of the online software, the WTI rescue staff working in different parts of the country can have access to information on what is happening in other satellite MVS stations and rescue centres.

7. Broad budget analysis for implementing the plan

As mentioned in section 2 of Part-II, few structures are being proposed to be built within the old and new campus and the proposed extension land. Correspondingly, this would also involve a budgetary increase in the project running expenses. The personnel planning for the future has already been discussed in detail in section 3 of Part-II. In this section, we deal with the broad budget required for the establishment and running of these proposed facilities and activities. The funds for these developments will be raised by WTI with the support of its international partner IFAW (International Fund for Animal Welfare).

7.1. Construction and development (2010 to 2020)

The following tables (a & b) depict the cost to be incurred for the developments planned during the next ten years (2010-2020) Nearly 84 lac rupees will be spent during this period for construction and more than 1.21 crores on equipping CWRC and its satellite centres.

(a) Construction cost

2010-2020:

Year	Centre / Unit	Location	S. No	Proposed facility	Budget (in Rs)	Budget (year-wise)
2010-11	CWRC	Old campus	1	Elephant nursery	600,000	
		Extension area	2	Power fencing	400,000	1000,000
2011-12	CWRC	Old campus	2	Free flight aviary	450,000	
			3	Primate complex	650,000	
		New campus	4	Water tank	60,000	
		Extension area	5	Interpretation centre	300,000	1460,000
2012-13	CWRC	Old campus	6	Big cats enclosure	800,000	
		Extension area	7	Elephant school halls	200,000	
		Extension area	8	Elephant treatment yard	50,000	1050,000
2013-14	CWRC	Extension area	9	Disease surveillance unit	450,000	450,000

2014-15	CWRC	Extension area	10	Conference hall	1,000,000	1,000,000
2015-16	Satellite station	MVS, Kokrajhar	11	Hospital	1400,000	1400,000
2015-16	Satellite station	MVS, Kokrajhar	12	Small animal nursery	1200,000	1200,000
2016-17	Satellite station	MVS, Upper Assam	13	Leopard treatment holding & squeeze (1)	100,000	
			14	Small carnivore holding	50,000	
			15	Nylon netted aviary	400,000	550,000
2016-17	CWRC	Extension area	16	Trainee hostel	15,000	15,000
2018-19	Satellite station	MVS, North Bank	17	Stabilization holdings for birds and reptiles	250,000	250,000
				TOTAL	8,375,000	8,375,000

(b) Capital cost (equipment and vehicles)

Capital equipments to be added on a priority basis include advanced drug-immobilization systems, new ambulances in place of the old ones, laboratory equipments, X-ray machine and veterinary surgicals.

Year	Unit / Location	Equipments	Budget (in Rs)	Budget (year-wise)
2010-11	CWRC, Kaziranga NP	Mobile X-ray (160 MA)	600,000	600,000
2011-12	CWRC, Kaziranga	Remote delivery rifle	250,000	0
	MVS, Upper Assam	Remote delivery rifle	250,000	500,000
2012-13	MVS, Lower Assam	Remote delivery rifle	270,000	0
	MVS, Karbi Anglong	Remote delivery rifle	270,000	0
	MVS, North Bank	New vehicle	750,000	0
	MVS, North Bank	Remote delivery rifle, crates, surgicals etc.	370,000	1,660,000
2013-14	CWRC & all other 3 satellite units	New vehicles to replace the 4 old ambulances	3,000,000	3,000,000
2014-15	CWRC, Kaziranga	Disease surveillance laboratory	500,000	0
	MVS, Southern Assam	New vehicle	750,000	0
	MVS, Southern Assam	Remote delivery rifle, crates, surgical etc.	220,000	1470,000
2015-16	CWRC, Kaziranga	Laptop & LCD projector	100,000	100,000
2016-17	CWRC, Kaziranga	Veterinary ultrasound	1000,000	1000,000

2017-18	MVS, Kokrajhar	Portable X-ray	650,000	650,000
2019-20	CWRC & 3 MVS units	New vehicles for replacing the old (4 No.)	3200,000	3200,000
		TOTAL	12,180,000	12,180,000

7.2. Day to day maintenance (2010 to 2020)

The creation of the above facilities would mean incurring additional expenses. Over and above the present expenses incurred in running the main centre at CWRC and the three satellite units (namely the MVS units in Lower Assam, Upper Assam and Karbi Anglong), it is expected to cost the organization an additional estimated expenditure of over 3.24 crore rupees for the next ten years. This includes the cost of additional staff to be employed, animal care, and project running expenses. The first table (a) shows the cost of employing additional staff and the second table (b) illustrates the other expenses incurred like animal care, project running and cost for capacity building.

(a) Additional staff cost:

The number of new employees to be recruited in the next five years for CWRC and its satellite units has been shown in the table below. This is apart from the present staff strength in these project areas which has been dealt already in the previous sections. About 50 lakhs rupees will have to be generated for the new staff to be appointed during the first five years (2010-15) and another 1.5 crores for the next five years (2016-2020) (see tables below). Put together about Rs. 2 crores, over and above the present salary budget, will be required for the next 10 years.

For period 2010-15:

Year	Centre / Sat. Unit	Proposed plan	Budget (In Rs.)	Budget (Yr wise)
2010-11	CWRC, Kaziranga NP	Pathologist	(No additional cost)	
	MVS, Kokrajhar	One more keeper	48,000	48,000
2011-12	CWRC, Kaziranga NP	One more keeper + security guard	96,000	0
	MVS, Kokrajhar	Keeper (one more, total 2 keepers)	96,000	0

		One senior vet	360,000	0
	MVS, North bank	One vet / keeper	380,000	932,000
1012-13	MVS, Kokrajhar	Keepers (2), vet (1)	480,000	0
	CWRC, Kaziranga	Keeper+Security	120,000	0
	MVS, North bank	Vet / keeper	400,000	1000,000
1013-14	CWRC, Kaziranga NP	One lab technician	260,000	0
	MVS, Kokrajhar	Keepers (2), vet (1)	500,000	0
	CWRC, Kaziranga	Keeper+Security	140,000	0
	MVS, North bank	Vet / keeper	420,000	1320,000
2014-15	MVS, Southern Assam	One vet / keeper	420,000	0
	CWRC, Kaziranga NP	One lab technician	280,000	0
	MVS, Kokrajhar	Keepers (2), vet (1)	520,000	0
	CWRC, Kaziranga	Keeper+Security	150,000	0
	MVS, North bank	Vet / keeper	440,000	1810,000
		TOTAL	5,110,000	5,110,000

For period 2016-2020:

Year	Centre / Sat. Unit	Proposed plan	Budget (In Rs.)	Budget (Yr wise)
2015-16	B/F from 2014-15 (with 10% inflation)		2000,000	
	CWRC, Kaziranga NP	Centre Manager (1)	480,000	2,480,000
2016-17	B/F from 2014-15 (with 20% inflation)		2200,000	
	CWRC, Kaziranga NP	Centre Manager (1)	540,000	
		Attendant (1)	72,000	2,812,000
2017-18	B/F from 2014-15 (with 25% inflation)		2250,000	
	CWRC, Kaziranga NP	Centre Manager (1)	600,000	
		Attendant (1)	80,000	
	MVS, Kokrajhar	Keepers (2)	144,000	3,074,000
2018-19	B/F from 2014-15 (with 30% inflation)		2340,000	
	CWRC, Kaziranga NP	Centre Manager (1)	648,000	
		Attendant (1)	84,000	

	MVS, Kokrajhar	Keepers (2)	168,000	3,240,000
2019-20	B/F from 2014-15 (with 35% inflation)		2430,000	
	CWRC, Kaziranga NP	Centre Manager (1)	648,000	
		Attendant (1)	84,000	
	MVS, Kokrajhar	Keepers (2)	168,000	3,330,000
		TOTAL		1,49,36,000

(b) Additional project running expenses:

For period 2010-15:

Animal care and project running costs for CWRC and its four satellite stations is anticipated to cost Wildlife Trust of India more than Rs. 1.24 crores, over and above the present expenditure.

Year	Centre / Sat. unit	Animal care (Rs)	Project running (Rs)	Total budget (Yr wise in Rs)
2010-11	MVS, Kokrajhar	60,000	40,000	
	CWRC, Kaziranga *	0	120,000	220,000
2011-12	CWRC, Kaziranga NP	60,000	80,000	0
	MVS, Kokrajhar	60,000	40,000	0
	MVS, North Bank	300,000	200,000	0
	CWRC & MVS, UA *	0	220,000	960,000
2012-13	CWRC, Kaziranga NP	60,000	80,000	0
	MVS, Kokrajhar	70,000	40,000	0
	MVS, North Bank	300,000	200,000	0
	CWRC, Kaziranga NP *	0	130,000	880,000
2013-14	CWRC, Kaziranga NP	70,000	90,000	0
	MVS, Kokrajhar	80,000	40,000	0
	MVS, North Bank	320,000	220,000	820,000
2014-15	MVS, Southern Assam	200,000	100,000	0
	CWRC, Kaziranga NP	80,000	90,000	0

	MVS , Kokrajhar	90,000	50,000	0
	MVS, North Bank	340,000	220,000	1170,000
		2,090,000	1,960,000	4,050,000

* For the capacity building of staff

For period 2015-2020:

The additional recurring cost anticipated during these years is for the capacity building of keepers and rehabilitators. The number of rescue cases being attended during this time is expected to remain the same and therefore no additional costs are expected except the annual inflation.

Year	Centre / Sat. unit	Animal care (Rs)	Project running (Rs)	Total budget (Yr wise in Rs)
2015-16	CWRC & all 4 units	780,000	500,000	1,280,000
				0
2016-17	CWRC & all 4 units	850,000	680,000	1,530,000
				0
2017-18	CWRC & all 4 units	930,000	750,000	1,680,000
				0
2018-19	CWRC & all 4 units	1010,000	825,000	1,835,000
				0
2019-20	CWRC & all 4 units	1110,000	910,000	2,020,000
				8,345,000

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Part – III

Management Plan



Management Plan for the period 2010 to 2015

Wildlife Trust of India spends about Rs 67 lakhs every year for meeting the recurring costs of CWRC, its three satellite mobile units and the associated rehabilitation projects in Assam. In addition to this, funds will be generated for meeting the following tasks assigned for the period 2010-2015:

1) Establishment of new facilities

At present there is only one large carnivore enclosure at CWRC. This can be used only for one species, either for the tiger or the leopard. The plan is to build one more large-carnivore enclosure adjoining the present one so as to accommodate an adult bear or tiger. The other two large enclosures being planned are the primate enclosure and the large bird flight aviary. These enclosures are necessary considering the space requirements for arboreal species like primates and free flying large birds like storks and diurnal raptors. These are the only three enclosures being planned for the period 2011-13.

As far as other infrastructure is concerned, the immediate need is for a dedicated nursery for elephants. The present large herbivore nursery has only four rooms and given the fact that on an average, four or five elephant calves are brought to the centre for stabilization and hand-raising each year, this facility is inadequate for elephants, rhinos and buffalos. This new nursery will be built in the old campus, but right next to the new 8 acre campus area, set aside solely for elephant calves.

All the remaining constructions are planned in the proposed 3.47 hectare extension area to be soon added to the CWRC premises. This area lies opposite to the present campus and was in fact the first location identified for building the rescue centre. All the constructions proposed in the area is for the period 2012-2015. First the area boundary will be power fenced, followed by the establishment of a series of simple structures that would match perfectly to the landscape features of the area. The area will be designated for visitor interpretation and captive elephant care. An amphitheater like visitor interpretation centre is being planned here. There will be a lecture hall for orienting or imparting training to students, volunteers, in-service personnel,

veterinarians and foresters on captive elephant management. There will also be an elephant *kraal* or tethering area for treating captive elephants that are brought to the centre. The campus is also proposed to hold the surveillance unit for the collection, preservation, storage and processing of clinical and biological samples for detecting emerging diseases from wildlife. And lastly, there is also a plan to establish a conference hall here to comfortably accommodate about 70 people. In short, the entire area has been conceptualised as a visitor friendly zone where training, interpretation, education, conferences, meetings and elephant care can be organized.

2) Capacity Building of staff

As mentioned earlier, there are plans to send at least four of the employees for training on various aspects of wildlife rehabilitation and medicine. The pathologist will be sent as an intern to a reputed wildlife pathology laboratory to hone his skills in the subject. CWRC's clinician will be exposed to the recent techniques in medical care of wildlife patients and the upper Assam MVS veterinarian requires an orientation on the recent developments in chemical capture and translocation. With X-ray machines and ultrasounds being planned to be incorporated into the diagnostic support lineup, there is also a need to train the staff on these aspects.

3) Equipping CWRC and satellite units

Two kinds of equipments are being planned for CWRC and its satellite units in Assam. One is the drug-immobilization equipment for chemical capture to be used by field veterinarians and the other is diagnostic aid-equipments like X-ray machines and ultrasounds. Most of the MVS units at present have a pneumatic projectile system which has its own limitation when it comes to darting mega herbivores like elephant, rhino or gaur in the wild. The plan is to buy four sets of an advanced model of a syringe projector and make these available to all the field vets. Almost a decade has passed since the establishment of CWRC and it has developed to the extent where an X-ray machine and an ultrasound have become necessities.

4) Replacing the ambulances

The present set of vehicles used as wildlife emergency vehicles were purchased in 2009. Based on WTI's previous experience of running ambulances in Assam, the vehicles are expected to last for not more than 5-6 years. Therefore all the four MVS vehicles, including that of CWRC, will

be replaced with new ones in 2013-14. The first batch of vehicles was Mahindra Pik-ups and the present set of vehicles is Tata Telcoline model vehicles. Newer, more suitable models might come to the market in the next four years time.



Fig: Two of models of vehicles for MVS units tried so far. Mahindra (left) and TATA (right).

5) Initiation of new satellite mobile units

The area above the Brahmaputra River, popularly called the North Bank region of Assam, is an important biogeographic subunit in Assam. This is where tigers stray and elephants come in frequent conflict with people. At least three incidences of tigers ‘straying’ out of the Kaziranga NP have been reported here and not to forget about the numerous elephants calves that have come from this region. It has been planned to institute the North Bank MVS unit in 2012-13. This will be followed by the initiation of what is likely to be the last MVS unit of Assam in Southern Assam (Silchar). With this, the entire landscape of Assam would have been covered by the WTI vets. Not only new vehicles, but also equipment and other infrastructure like crates, surgical and other medical equipments, will have to be purchased.

6) New staff to meet new demands

Initiation of MVS units in North Bank and Southern Assam would mean the employment of two veterinarians and two animal attendants. At CWRC, the resident veterinary officer will henceforth be a pathologist who, besides attending to the needs of the inmates at the centre, can also investigate into the cause of the deaths in captivity as well as in the wild. Establishment of a disease surveillance laboratory and X-ray diagnostic facility would mean a laboratory technician who can attend to all these in-house needs of CWRC.

The development of the Lower Assam MVS unit into a full-fledged rehab centre would necessitate the appointment of two more animal attendants in the coming five years. As at CWRC, there will be a need for a senior veterinarian here also.

7) Added animal care and project running expenses

Additional new facilities would mean new sets of activities and new avenues for added recurring expenditures. The developments at Kokrajhar as a transit home of CWRC mean increased expenses for the maintenance of enclosures, animal care and project running. In the second year of its establishment, the North Bank MVS unit would have also realized its potential, nearly doubling its budget in the second year. The major increase in project running cost would be at CWRC. Laboratory reagents, X-ray films and maintenance costs will account for a substantial proportion of the project expenditures for the next five years.

In summary, the following table shows the projected figures of additional costs to be incurred on account of the proposed new plans, over and above the present budget of about 67 lakhs.

Table: Projected budget for the period 2010-2015 (over and above the present expenditure)

Financial Year	Budget for CWRC	Satellite Centres of CWRC					Total (Rs)
		Upper Assam	Lower Assam	Karbi Anglong	North Bank	Southern Assam	
2010-11	1720,000	0	148,000	0	0	0	1,868,000
2011-12	2066,000	350,000	556,000	0	880,000	0	3,852,000
2012-13	1440,000	0	860,000	270,000	2020,000	0	4,590,000
2013-14	1760,000	750,000	1370,000	750,000	960,000	0	5,590,000
2014-15	2100,000	0	660,000	0	1000,000	1690,000	5,450,000
	9,086,000	1,100,000	3,594,000	1,020,000	4,860,000	1,690,000	21,350,000

The following histogram illustrates the funding committed for the next five years and the funds to be raised for realizing the proposed new list of activities.

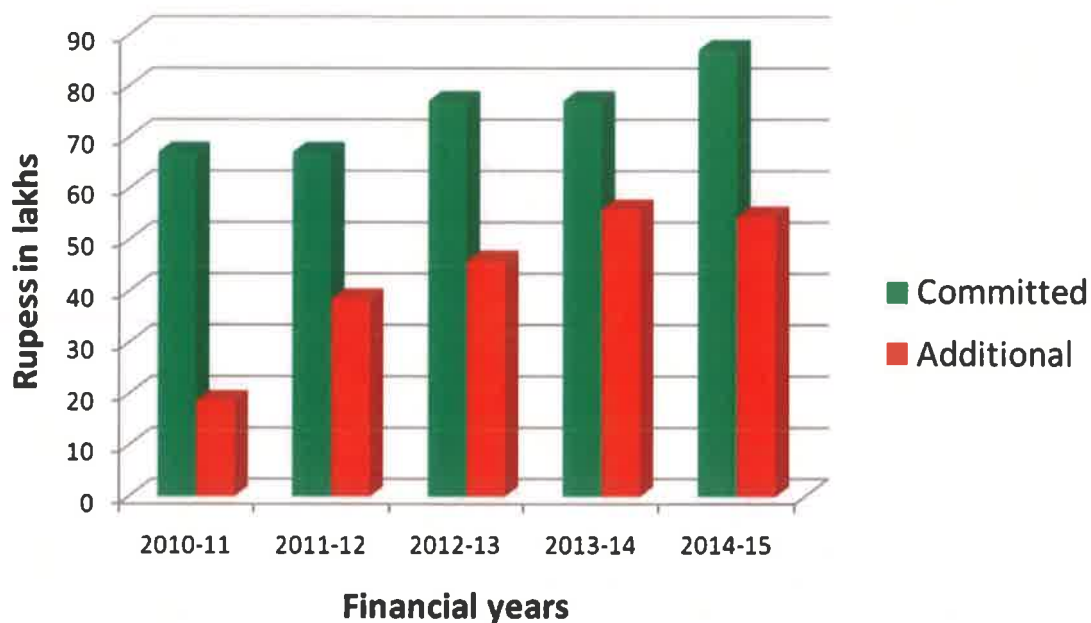


Fig: A comparison of the current budgetary allocation for running CWRC and its associated satellite units and the projected additional budget

8. Sources of funding

Wildlife Trust of India's international partner, IFAW (International Fund for Animal Welfare) has been the single major donor supporting the Emergency Relief and Rehabilitation activities in the state. But this contribution alone may be insufficient to realize the proposed development plans. In recent years, oil companies like GAIL, ONGC and Oil India Ltd, have shown considerable interest in funding ER activities, largely for the purchase of capital equipments like vehicles as ambulances. In recent years zoos in the US and Europe have shown some interest in supporting projects of species they hold in captivity. The Director of the Wild Rescue program at WTI, the Executive Director and the staff of the planning department are responsible for raising the funds to meet these increasing demands of the future.

INVENTORY REPORT as on December 2009

(SCH-1 & SCH-2 (WILDLIFE PROTECTION ACT) (Note: Only non-releasable animals in permanent captivity are shown here)

Name of Zoo/ Rescue Centre: Centre for Wildlife Rehabilitation and Conservation, Kaziranga National Park, Borjuri, Bokakhat, Assam

Mammals

Sl No	Species (Common name)	Scientific Name	Opening stock (as on 01.07.2009)			Births			Acquisitions			Disposal			Deaths			Closing balance (as on Dec 09)		
			M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1.	Asian Elephant	<i>Elephas maximus</i>	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0
2.	Asiatic Wild Buffalo	<i>Bubalus arnee</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3.	One Horned Rhinoceros	<i>R. unicornis</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4.	Bengal Tiger	<i>Panthera tigris</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5.	Common Leopard	<i>Panthera pardus</i>	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Total			10 (M:3; F:2; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			10 (M:8; F:2; U:0)		

Birds

Sl No	Species (Common name)	Scientific Name	Opening stock (as on 01.07.2009)			Births			Acquisitions			Disposal			Deaths			Closing balance (as on Dec 09)		
			M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)		

Reptiles

Sl No	Species (Common name)	Scientific Name	Opening stock (as on 01.07.09)			Births			Acquisitions			Disposal			Deaths			Closing balance (as on Dec 09)		
			M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)			0 (M:0; F:0; U:0)		

Flora and Fauna of CWRC campus

The CWRC campus is located near the highway 37 in the Panbari Reserve Forest, opposite to Kaziranga National Park. Floristically the area should have looked similar to the well wooded Panbari RF area where capped langurs and even hoolock gibbons inhabit. However, the land when handed over was nearly barren (see picture below), a clear indication of the level of anthropogenic pressures on the land from the neighbouring Borjuri village. Vegetation inside the campus has shown remarkable recovery ever since it was fenced in 2002. Considerable amount of planting was also undertaken in the subsequent years and all these efforts have resulted in a well wooded environment now (see pictures below).



Fig: The barren campus as it looked in early 2002 (left) and the well wooded campus in 2009 (right).

(a) Flora of the campus

The original vegetation type of the rescue centre premises should have been a mix of semi-evergreen and moist-deciduous elements as seen from the vegetation type found in the nearby undisturbed forest patches of Panbari RF. Following is the list of major species of trees found in the 8 hectare area. Many of these species like *Azadirachta indica*, *Syzgium cumini*, *Terminalia arjuna*, *Emblica officinalis* and *Mangifera indica* were planted. *Bauhinia racemosa* was perhaps the most commonly tree found tree in the area.

1. *Bombax ceiba*
2. *Lagerstroemia parviflora*
3. *Albizia procera*
4. *Zizyphus mauritiana*
5. *Ficus racemosa*
6. *Terminalia arjuna*
7. *Emblica officinalis*
8. *Artocarpus* spp.
9. *Dillenia indica*
10. *Bauhinia racemosa*
11. *Mangifera indica*
12. *Bambusa* spp.
13. *Azadirachta indica*
14. *Syzigium cumini*
15. *Tectona grandis*

A fruiting *Ficus* tree in CWRC campus



(b) Fauna of the campus

Since the area is only 8 hectares, surrounded by tea garden on one side, Panbari village on one side, barren RF in front and a semi-evergreen forest behind, not many species of wildlife that



Fig: Captive leopards at the centre often attract wild leopards towards the campus as seen by the pug-marks and scratch marks seen nearby.

inhabit these areas dare to enter and inhabit the premises. It is common to see wildlife coming and going at dawn and dusk to take advantage of the food remains in the rhino, elephant and buffalos stockades. Though elephants and leopards frequent the surrounds, the power fence discourages them to enter in and interact with resident elephant calves and leopards. The following table lists 10 most

commonly encountered species of mammals and birds. The list is not comprehensive

Table: Ten most commonly encountered species of birds and mammals.

No	Mammalian species	No	Avian species
1	Hog deer <i>Axis porcinus</i>	1	Great hornbill <i>Buceros bicornis</i>
2	Capped langur <i>Trachypithecus pileatus</i>	2	Oriental pied hornbill <i>Anthraceroceros coronatus</i>
3	Indian Hare <i>Lepus nigricollis</i>	3	Red jungle fowl <i>Gallus gallus</i>
4	Small Indian Civet <i>Viverricula indica</i>	4	Asian koel <i>Eudynamys scolopacea</i>
5	Comon Palm Civet <i>Paradoxurus hermaphroditus</i>	5	Indian roller <i>Coracias benghalensis</i>
6	Jungle Cat <i>Felis chaus</i>	6	Black-hooded oriole <i>Oriolus xanthornus</i>
7	Hoary-bellied Himalayan squirrel <i>Callosciurus pygerythrus</i>	7	Racket-tailed drongo <i>Dicrurus paradiseus</i>
8	Five-striped palm squirrel <i>Funambulus pennantii</i>	8	Forest owlet <i>Athene blewitti</i>
9	Grey mongoose <i>Herpestes edwardsii</i>	9	Common moorhen <i>Gallinula chloropus</i>
10	Particoloured flying squirrel <i>Hylopetes alboniger</i>	10	Little egret <i>Egretta garzetta</i>

Common species of reptiles encountered in the rehab centre campus include the King cobra (*Ophiophagus Hannah*), Burmese rock python (*Python molurus bivittatus*), Monocled cobra (*Naja kaouthia*), Monitor lizard (*Varanus bengalensis*), rat snake (*Ptyas muscosa*), red-necked keelback (*Rhabdophis subminiatus*), white-lipped pit viper (*Trimeresurus albolabris*), banded krait (*Bungarus fasciatus*) and copper-headed trinket snake (*Coelognathus radiatus*).

=====

Staff structure at CWRC

The memorandum of understanding signed between the Wildlife Trust of India and the Assam Forest Department in 2001 has nominated the Director of KNP as the Project Leader of CWRC. The DFO is the Deputy Project Leader. There are 11 staff working at CWRC and they all come under the purview of the Project Leader and Deputy Project Leader. The staffs of the respective Mobile units (Lower, Upper and Karbi Anglong) work in association with the Divisional Forest Officers of their respective divisions. The following organogram depicts the present staffing pattern at CWRC and its associated satellite mobile units.



Wildlife Trust of India, with the permission of the Governing Council and the Chief Wildlife Warden of the state, will in the near future appoint two more veterinarians and keepers to address wildlife emergencies in North Bank and Southern Assam.

Annexure 5

List of buildings other than enclosures

All the buildings at CWRC campus are in the old campus within an area about 1 acre. These are all located juxtaposed to one another, except the large animal nursery and the keeper's dormitory which are slightly away.



No	Main Building	Sections within
1	Hospital complex	1. Surgery
		2. Clinics
		3. Lab
		4. Stores
		5. Kitchen (milk)
		6. Kitchen (concentrate)
		7. Wash room
2	Office complex	1. Office room
		2. Retiring rooms
		3. Kitchen
3	Keepers' dormitory	1. Four rooms
4	Nurseries	1. Large animal nursery
		2. Small animal nursery
5	Postmortem section	One

No. DIT (E)/98-99/4110#1 981621

Office of the
Director of Income Tax (E)
7th Floor, Mayur Bhawan,
New Delhi.

Dated the 20/1/1999

1. Name & Address of the Applicant Wildlife Trust of India
D 24 Purnimash Enclave, Greater Kailash, Part I
New Delhi - 110048

**Sub : ORDER OF REGISTRATION U/S 12A, READ WITH SECTION 12AA(1)(b) OF
THE INCOME TAX ACT, 1961.**

1. An application in Form No. 10A seeking Registration U/s 12A was filed on 10/12/98.
2. There was a delay of days in filing the application which is condoned after considering the petition of the Applicant.
3. ~~The Trust / Society / Non Profit Company~~ was constituted by Deed of Trust / Memorandum of Association dated 16/11/98 The Objects of the Trust / Association / Society / Non Profit Company are indicated in Para No. 5 of the Trust Deed / Memorandum of Association.
4. It has been stated by the Trust / Manager as well as in communicating letter dated that the Main Objects of the Trust shall be to carry on the following activities :
5. On enquiry conducted by this office / through Inspector to look into the genuineness of the activities carried on by the Trust / Society / Non Profit Company and its physical existence, it has been reported that the office of the society is located at and has the following infrastructure to carry on the activities.



~~The Trust / Society / Non Profit Company~~ has given a Public Notice in the Local Newspapers of its object based activity and the target group i.e. beneficiaries, it shall serve. The Deed does not contain any Non-Charitable object which could be held contrary to the decision of Supreme Court in Yogiraj Trust 103 ITR 777. After perusing the Memorandum / Trust Deed and the activities actually carried on by the Trust / Promised now made before me, I am satisfied that the conditions laid down u/s 12A / 12AA are satisfied and so the activities of the Trust can be held to be genuine and that it is carrying out charitable activities. Registration u/s 12A read with Sec. 12AA(1)(b) is accordingly hereby granted with effect from 16/11/98 subject to satisfaction of the following conditions:

7. Conditions

- i) Order u/s 12A(a) read with Section 12AA(1)(b) does not confer any right of exemption upon the Applicant u/s 11, 12 and / or 13 of the Income Tax Act, 1961. This exemption from taxation will be available only after the Assessing Officer is satisfied about the genuineness of the activities promised or claimed to be carried in each Financial Year relevant to the Assessment Year and all the provisions of Law abutting thereupon.

Contd. on page 2

- ii) The Trust / Society / Non Profit Company shall comply with the provisions of Section 139A(1)(ii) and (iii) of the Act within one Month of the date of this order to obtain a Permanent Account Number and shall communicate the PAN to this office.
 - iii) The Trust / Society / Non Profit company shall maintain Accounts regularly and shall get these audited in accordance with the provisions of Section 12A(b) of the Income Tax Act, 1961. Separate accounts in respect of each activity as specified in Memorandum shall be maintained. A copy of such accounts shall be submitted to the Assessing Officer. A Public Notice of the activities carried on / to be carried on and the target group(s) (intended beneficiaries) shall be duly displayed at the Registered / Designated Office of the Organisation.
 - iv) Separate accounts in respect of Corpus Donations shall be maintained in compliance to Section 44AA of the Income Tax Act, 1961.
 - v) All the Public Moneys so received including for Corpus or Contribution shall be routed through a Bank Account and such Bank Account Number shall be communicated to this office.
 - vi) No change in the Trust Deed / Memorandum of Association shall be effected without the approval of the jurisdictional High Court / Appropriate Authority Keeping in view of the decision of the Supreme Court in the case of Andhra Chamber of Commerce, it shall continue to serve the main object (of the Trust in future faithfully without any change).
 - vii) No asset shall be transferred without the knowledge of the undersigned to anyone, including any Trust / Society / Non Profit Company etc.
 - viii) If later on it is found that the Registration has been obtained fraudulently / mis - representation or suppression of any fact, the Registration so granted is liable to be cancelled.
8. This order is hereby passed u/s 12A read with Section 12AA of the Income Tax Act, 1961 and entered at Serial No. 621 of the Register maintained in this office.



Copy to:

1. The Applicant as above.
2. The Assessing Officer T.C. II
The Income Tax Officer (E)



S.C. Grover
(S.C. GROVER)
Director of Income Tax
(Exemptions)
New Delhi

Director of Income Tax (Exemptions)
7th Floor, Mayur Bhawan
Connaught Place, New Delhi

S.C. Raswant
(S.C. RASWANT)
Income Tax Officer (Exemptions) (Hqs)
for Director of Income Tax (Exemp.)
(S.C. RASWANT)
Income Tax Officer (Hqs Exemption)
New Delhi

Attn: Nivek

GOVERNMENT OF ASSAM
OFFICE OF THE CHIEF CONSERVATOR OF FORESTS (WILDLIFE) ASSAM
REHABARI, GUWAHATI-8

No WL/FG 5/2003/Rescue Animals/1

dt. 16/08/2007

To: /
D. R. Barman,
Senior Manager Wildlife Rescue,
Wildlife Trust of India,
C/o Field Director, Manas National Park,
Barpeta Road

Re: Renewal of MOU for the management of Center for Wildlife Rehabilitation and
Conservation (CWRC) at Barpeta, Assam.

Ref: Your letter no. WTD/Manas/52, dt. 20/3/07

Sir,

With reference to your letter mentioned above, I would like to inform you that the
Govt. has allowed to renew the MOU for the next five years with effect from 10-04-2007
with the following changes in the composition of the Governing Council in the article III.

- 1) The Commissioner, Forests will be the Chairman in place of Principal
Secretary, Forests
- 2) The Divisional Forest Officer, Assam State Zoo will be the member in place of
Director, Guwahati Zoo

Yours faithfully

[Signature]
16/8/07

Principal Chief Conservator of Forests (WL), Assam

Copy to the Principal Chief Conservator of Forests, Assam, Rehabari, Guwahati-8
for favour of kind information

Sd/-
Principal Chief Conservator of Forests (WL), Assam

**MEMORANDUM OF UNDERSTANDING
FOR THE DEVELOPMENT AND OPERATION OF
"CENTER FOR WILDLIFE REHABILITATION AND CONSERVATION" IN
ASSAM**

This Memorandum of Understanding (MoU) is entered into on this Tenth day of April, 2001

BETWEEN

The DEPARTMENT OF FORESTS, GOVERNMENT OF ASSAM, hereinafter referred to as the "FIRST PARTY" (which term and expression shall unless repugnant to the context mean and include its successors, administrators, executors, legal representatives and assigns) on the ONE PART

AND

The WILDLIFE TRUST OF INDIA, hereinafter referred to as the "SECOND PARTY" (which term and expression shall unless repugnant to the context mean and include its successors, administrators, executors, trustees, legal representatives and assigns) on the OTHER PART

WHEREAS the FIRST PARTY is a government department engaged in the administration of protection and management of wildlife in the state of Assam, and matters incidental or related thereto.

AND WHEREAS the SECOND PARTY is a charitable trust registered under the Income Tax Act 1961 under Section 12 (A), and is engaged in the promotion of conservation and welfare of wildlife and matters incidental thereto.

AND WHEREAS the FIRST and SECOND PARTIES are desirous of establishing a center for housing temporarily disadvantaged wild animals which may be injured, maimed, orphaned, sick, straying or in any form of distress and to provide them with food, shelter, veterinary care, treatment and other rehabilitation measures, till they are fit to be released into their appropriate natural habitats.

AND WHEREAS both parties desire to develop and operate the "CENTER FOR WILDLIFE REHABILITATION AND CONSERVATION" in Assam, desire to put their agreement in writing for that purpose.

NOW THEREFORE THIS MOU WITNESSETH AS UNDER:

ARTICLE I

Both parties agree that the following are the objectives and scope of work of the center:

- (a) Rescue temporarily disadvantaged wild animals, which have been confiscated, injured, maimed, orphaned, sick and/or astray,
- (b) Optimise the conservation and re-introduction potential of the rescued wild animals,

- (c) Promote ethical and humane methods of handling, maintenance in captivity, and veterinary care,

- (d) Release back to the wild with re-introduction and monitoring programs developed for the rescued wild animals.

ARTICLE II

Both the parties shall collaborate at all stages of the execution of all mutually agreed activities, and shall not withhold from each other relevant information or otherwise hinder the execution of these activities.

ARTICLE III

- (a) The FIRST and SECOND PARTIES, for the purpose of the efficient management of the center and its programmes, agree to constitute a 'Governing Council' consisting of the following members:

1. Secretary, Forest Department, Government of Assam	-	Chairman
2. Principal Chief Conservator of Forests, Forest Department, Government of Assam	-	Member
3. Chief Wildlife Warden, Forest Department, Government of Assam	-	Member
4. Field Director, Kaziranga National Park, Forest Department, Government of Assam	-	Member
5. Chairman, Board of Trustees, Wildlife Trust of India	-	Member
6. Trustee, Wildlife Trust of India	-	Member
7. Executive Director, Wildlife Trust of India	-	Member
8. Representative, Wild Rescue program, Wildlife Trust of India	-	Member
9. Faculty member of the College of Veterinary Sciences, Guwahati, with specialization in wildlife surgery	-	Member
10. Faculty member of the College of Veterinary Sciences, Guwahati, with specialization in wildlife pathology	-	Member
11. Faculty Member of a leading local institution, Guwahati, with specialization in animal ecology or wildlife biology	-	Member
12. Representative, local NGO with experience in wildlife rehabilitation	-	Member
13. Project Leader	-	Member Secretary

- (b) In addition to the above, the 'Governing Council' may identify people of repute with expertise of topical relevance and invite them to the 'Governing Council' meetings.

- Viol*
(c) The institutions / NGOs at sl. no. 11 and 12 above will be selected by the 'Governing Council'. The representatives thereof and of sl. 9 and sl. 10 shall be nominated by respective Heads of the institutions / NGOs in consultation with the Chairman of the 'Governing Council'. The 'Center Manager' of the "Center for Wildlife Rehabilitation and Conservation" shall attend the meetings of 'Governing Council', whenever necessary, as an ex officio invitee.

• ARTICLE IV

- a) The 'Governing Council' shall determine its overall responsibilities during the inaugural and ensuing meetings, but these shall include:
1. Formulation of the policies, guidelines, rules and regulations and matters relating thereto of the center;
 2. Overseeing the center and its entire programme;
 3. Review of the progress of the implementation of the projects of the center from time to time;
 4. Issue of suitable directions / advice to the center management
 5. Such other matters as may arise.
- (b) The 'Governing Council' should meet at least twice a year.

ARTICLE V

The FIRST PARTY shall nominate an official of the Forest Department, Government of Assam, in consultation with the SECOND PARTY, as 'Project Leader'. The 'Project Leader' shall have overall responsibility in respect of the implementation of the decisions and directions of the 'Governing Council' and the objectives and programmes of the center. He will not, however, be involved in the day-to-day management of the center and its projects. The FIRST PARTY shall bear all costs relating to the 'Project Leader', including the salary, per diem and travel expenses etc.

ARTICLE VI

The SECOND PARTY shall engage appropriately qualified and experienced project personnel, who are acceptable to the FIRST PARTY, for the management of the center and implementation of the objectives of the center and its projects and programmes. These personnel include a 'Center Manager' and a 'Staff Veterinarian'. The 'Center Manager' will primarily be responsible for the management of the center and execution of its programmes and projects, subject to the overall guidance of the 'Project Leader'. The 'Staff Veterinarian' will be responsible for the veterinary care, treatment and husbandry of the temporarily disadvantaged wild animals. The 'Staff Veterinarian' will report to the 'Center Manager'. The SECOND PARTY shall further engage for the center such other personnel as maybe required for, e.g. assistants / drivers / keepers / watchmen etc. All costs including the salaries, per diem and travel expenses etc. of the staff engaged for the center and its projects and programmes, shall be borne by the SECOND PARTY, unless specifically mentioned otherwise. The FIRST PARTY shall have no obligation / liability for the engagement / regularization of the services of such staff during or after the expiry of this MoU / its projects. All liabilities, if any, arising out of the engagement of such staff during the period of this MoU will be borne by the SECOND PARTY. However, once their services are terminated / this MoU ceases to exist, all liabilities on the SECOND PARTY will also cease to exist.

ARTICLE VII

The FIRST PARTY shall appoint an officer from the Forest Services of the state of Assam, who is acceptable to the SECOND PARTY, as 'Deputy Manager' of the center. He will assist the 'Center Manager' in the discharge of his duties. The FIRST PARTY shall bear all costs relating to the 'Deputy Manager', including the salary, per diem and travel expenses etc. However, any travel and subsistence costs incurred on the 'Deputy Manager' during rescue, rehabilitation and re

introduction operations of the center, will be borne by the center

ARTICLE VIII

- (a) The center shall be called "Center for Wildlife Rehabilitation and Conservation" i.e. "CWRC".
- (b) The location and area under the center will be decided by the 'Governing Council' on the basis of a report of a site selection committee.
- (c) The center shall provide cages for quarantine, intensive care and rehabilitation of the rescued wild animals, which shall include 5 cages for carnivores, 6 cages for ungulates, 3 cages for primates, 3 cages for birds and 3 cages for reptiles. The details of the cage designs for the different species, veterinary facilities, staff accommodation, food store, other accessory facilities and equipment to be provided at the center will be approved by the 'Governing Council'.
- (d) All the necessary permits for the establishment of the aforesaid center and to fulfil the objectives of the center by the center management, including any such other complementary actions as may be initiated elsewhere in Assam in relation to the scope of work of the said center shall be provided by the FIRST PARTY.
- (e) The center shall be provided with water and electricity supplies, telecommunication infrastructure, motorable roads and sewage facilities, which shall be facilitated by the FIRST PARTY, while the SECOND PARTY shall incur all expenditure on the above.
- (f) The development of satellite rescue centers may also be considered by the 'Governing Council'.

ARTICLE IX

- (a) The SECOND PARTY will administer the accounts and expenses of the center, which shall be approved by the 'Governing Council'. The SECOND PARTY will open a bank account to manage the accounts and expenses of the center till the period of the MoU and all accounts relating to the center will be audited by an authorized chartered accountant.
- (b) The estimated establishment costs in the first year are Rs. 28,50,000 (Rupees Twenty-eight lakhs and fifty thousand). The estimated recurring costs per annum from the first year are Rs. 10,50,000 (Rupees ten lakhs and fifty thousand).
- (c) The SECOND PARTY will bear all the budgeted recurring and non-recurring costs of the center during the period of the MoU.

ARTICLE X

Any dispute between the parties in respect of this MoU and its implementation shall first be placed before the 'Governing Council' for amicable resolution. However, failing such resolution, the decision of the Chief Secretary, Government of Assam shall be final.

ARTICLE XI

This MoU shall come into force with effect from the date of its signature and shall be valid for a period of three years unless either of the parties gives to the other a written notice, three months in advance of its intention to terminate the MoU anytime before the period of expiry of the MoU. The MoU may be renewed for a further period on mutual consent of both parties. It may also be modified or amended by the mutual consent of both the parties.

IN WITNESSES WHEREOF, the PARTIES above named have hereto signed this MoU and affixed thereto their seals.

Executed at New Delhi on the day and month and year herein above written

FIRST PARTY

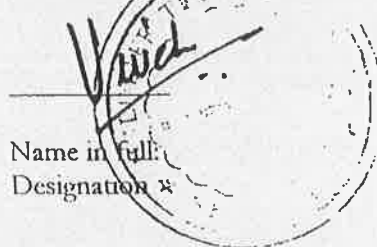


Name in full:

Designation:

ALOK JAIN
REVENUE SECRETARY
GOVT OF ASSAM.

SECOND PARTY

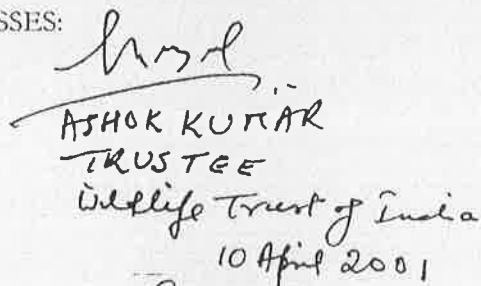


Name in full:

Designation:

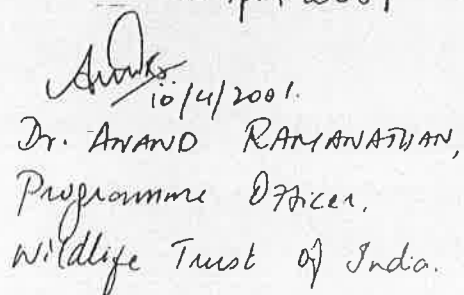
WITNESSES:

(1.)



ASHOK KUMAR
TRUSTEE
Wildlife Trust of India
10 April 2001

(2.)



10/4/2001.
Dr. ANAND RAMANATHAN,
Programme Officer,
Wildlife Trust of India.

File No. 10/2001/73

GOVT. OF ASSAM
SECRETARY TO THE GOVT. OF ASSAM
DISPUR

No. File. 10/2001/73, Dated Dispur, the 16th August, 2001.

From :- Shri B.B. Haggjer, IAS,
Secretary to the Govt. of Assam.

To

✓ The Executive Director,
Wildlife Trust of India,
PO Box - 250,
New Delhi - 110 003.

Sub :- Permission to establish the "Center for
Wildlife Rehabilitation and Conservation" in
a three-hectare of land situated in the Panbari
reserve forest.

Sir,

With reference to the subject cited above, I
am directed to say that in pursuance of Article VIII of the
Memorandum of Understanding (MOU) enclosed herewith
(Annexure A), dated 10th April, 2001 entered into between
Department of Forests, Government of Assam and Wildlife
Trust of India and in consonance with the resolution
passed at the first "governing Council" meeting of "Center
for Wildlife Rehabilitation and Conservation" held at
Guwahati on 1st June, 2001, Wildlife Trust of India or
the Second Party as per the MOU is hereby permitted to
establish the "Center for Wildlife Rehabilitation and
Conservation" in a piece of land measuring 3.05 hectares
situated in the Panbari reserve forest, bound by a red
line in a map enclosed herewith (Annexure B), solely for
the purpose of fulfilling the objectives and scope of work
related thereto to the center, laid down in the aforesaid
MOU.

Yours faithfully,

Secretary to the Govt. of Assam,
Forest Department, Dispur.

Contd...P/2..

GOVERNMENT OF ASSAM
DEPARTMENT OF ENVIRONMENT AND FORESTS
DISPUR :: GUWAHATI

No. FRW. 17/2001/123

Dated Dispur, the 12th July '07.

From : Dr. A.J. Choudhury, ACS,
Joint Secretary to the Govt. of Assam,
Environment and Forest Department;

To : The Chief Conservator of Forests (Wildlife),
Assam, Rehabari, Guwahati - 8%

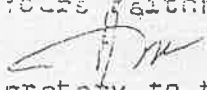
Sub : CAMPUS EXTENTION PROPOSAL FOR CENTRE FOR
WILDLIFE REHABILITATION AND CONSERVATION. ATC
(CWRG) AT PANBARI RESERVE FOREST BOKAKHAT.

Ref : Your letter No. WL/FG.5/2003/Rescue Animals
dtd. 7.5.07.

Sir,

With reference to your letter quoted above on the subject, I am directed to inform you that the Government has no objection for extension of "Centre for Wildlife Rehabilitation and Conservation (CWRG)" proposed additional area of 3.25 ha adjacent to the western boundary of present campus of Panbari Reserve Forest.

Yours faithfully,


Joint Secretary to the Govt. of Assam,
Environment and Forest Department.

GOVERNMENT OF ASSAM
DEPARTMENT OF ENVIRONMENT & FORESTS
DISPUR : GUWAHATI

No. FRW. 17/2001/122

Dated Dispur, the 12th July '87.

From : Dr. A. L. Choudhury, ACS,
Joint Secretary to the Govt. of Assam,
Environment and Forest Department.

To : The Chief Conservator of Forests (Wildlife),
Assam, Renabari, Guwahati - 86

Sub : RENEWAL OF MOU FOR THE MANAGEMENT OF CENTRE FOR
WILDLIFE REHABILITATION AND CONSERVATION (CWRG)
AT BARJURI, KAZIRANGA NATIONAL PARK.


Ref : Your letter No. WL/FGJ5/2003/Reserve Animals
etc. 4.5.87.

Sir,

With reference to your letter cited above,
I am directed to say that, the MOU with "Centre for Wild
life Rehabilitation" may be renewed for five years.

You are requested to do the needful.

Yours faithfully,


Joint Secretary to the Govt. of Assam,
Environment and Forest Department.

By

No. DIT (E)/98-99/41/10#1 981621

Office of the
Director of Income Tax (E)
7th Floor, Mayur Bhawan,
New Delhi.

Dated the 20/1/1999

1. Name & Address of the Applicant Wildlife Trust of India
D 24 Pannpash Enclave, Greater Kailash, Part I
New Delhi - 110048

Sub : ORDER OF REGISTRATION U/S 12A, READ WITH SECTION 12AA(1)(b) OF
THE INCOME TAX ACT, 1961.

1. An application in Form No. 10A seeking Registration U/s 12A was filed on 10/12/98.
2. There was a delay of days in filing the application which is condoned after considering the petition of the Applicant.
3. The Trust / Society / Non Profit Company was constituted by Deed of Trust / Memorandum of Association dated 16/11/98 The Objects of the Trust / Association / Society / Non Profit Company are indicated in Para No. 5 of the Trust Deed / Memorandum of Association.
4. It has been stated by the Trust / Manager as well as in communicating letter dated that the Main Objects of the Trust shall be to carry on the following activities :
5. On enquiry conducted by this office / through Inspector to look into the genuineness of the activities carried on by the Trust / Society / Non Profit Company and its physical existence, it has been reported that the office of the society is located at and has the following infrastructure to carry on the activities.
The Trust / Society / Non Profit Company has given a Public Notice in the Local Newspapers of its object based activity and the target group i.e. beneficiaries, it shall serve. The Deed does not contain any Non-Charitable object which could be held contrary to the decision of Supreme Court in Yogiraj Trust 103 ITR 777. After perusing the Memorandum / Trust Deed and the activities actually carried on by the Trust / Promised now made before me, I am satisfied that the conditions laid down u/s 12A / 12AA are satisfied and so the activities of the Trust can be held to be genuine and that it is carrying out charitable activities. Registration u/s 12A read with Sec. 12AA(1)(b) is accordingly hereby granted with effect from 16/11/98 subject to satisfaction of the following conditions:
7. Conditions
 - i) Order u/s 12A(a) read with Section 12AA(1)(b) does not confer any right of exemption upon the Applicant u/s 11, 12 and / or 13 of the Income Tax Act, 1961. This exemption from taxation will be available only after the Assessing Officer is satisfied about the genuineness of the activities promised or claimed to be carried in each Financial Year relevant to the Assessment Year and all the provisions of Law abutting thereupon.



Contd. on page 2

- ii) The Trust / Society / Non Profit Company shall comply with the provisions of Section 139A(i)(ii) and (iii) of the Act within one Month of the date of this order to obtain a Permanent Account Number and shall communicate the PAN to this office.
- iii) The Trust / Society / Non Profit company shall maintain Accounts regularly and shall get these audited in accordance with the provisions of Section 12A(b) of the Income Tax Act, 1961. Seperate accounts in respect of each activity as specified in Memorandum shall be maintained. A copy of such accounts shall be submitted to the Assessing Officer. A Public Notice of the activities carried on / to be carried on and the target group(s) (intended beneficiaries) shall be duly displayed at the Registered / Designated Office of the Organisation.
- iv) Seperate accounts in respect of Corpus Donations shall be maintained in compliance to Section 44AA of the Income Tax Act, 1961.
- v) All the Public Moneys so received including for Corpus or Contribution shall be routed through a Bank Account and such Bank Account Number shall be communicated to this office.
- vi) No change in the Trust Deed / Memorandum of Association shall be effected without the approval of the jurisdictional High Court / Appropriate Authority Keeping in view of the decision of the Supreme Court in the case of Andhra Chamber of Commerce, it shall continue to serve the main object (of the Trust in future faithfully without any change).
- vii) No asset shall be transferred without the knowledge of the undersigned to anyone, including any Trust / Society / Non Profit Company etc.
- viii) If later on it is found that the Registration has been obtained fraudulently / mis - representation or suppression of any fact, the Registration so granted is liable to be cancelled.

8. This order is hereby passed u/s 12A read with Section 12AA of the Income Tax Act, 1961 and entered at Serial No. 621 of the Register maintained in this office.



Copy to :

1. The Applicant as above.
2. The Assessing Officer T.C. (II)
The Income Tax Officer (E)



S.C.
S.C. GROVER
Director of Income Tax
(Exemptions)
New Delhi

Director of Income Tax (Exemptions)
7th Floor, Mayur Bhawan
Connaught Place, New Delhi

(S.C. RASWANT)
(S.C. RASWANT)
Income Tax Officer (Exemptions) (Hqs)
for Director of Income Tax (Exemp.)

(S.C. RASWANT)
Income Tax Officer (Hqs Exemption)
New Delhi

Attn: Vivek

GOVERNMENT OF ASSAM
OFFICE OF THE CHIEF CONSERVATOR OF FORESTS (WILDLIFE) ASSAM
REHABARI, GUWAHATI-8

No WL/FC/5/2003/Rescue Animals/1

dt. 16/08/2007

To,
✓ Dr. Rishon Barman,
Senior Manager Wildlife Rescue,
Wildlife Trust of India,
C/o Field Director, Manas National Park,
Barpeta Road

Re: Renewal of MOU for the management of Centre for Wildlife Rehabilitation and
Education (CWRE) at Barpeta Road, Assam.

Ref: Your letter no. WTI/Manas/57, dt. 27/7/2007

Sir,

With reference to your letter mentioned above, I would like to inform you that the
Govt. has allowed to renew the MOU for the next five years with effect from 10-04-2007
with the following changes in the composition of the Governing Council in the article III

- 1) The Commissioner, Forests will be the Chairman in place of Principal Secretary, Forests
- 2) The Divisional Forest Officer, Assam State Zoo will be the member in place of Director, Guwahati Zoo

Yours faithfully

[Signature]
Principal Chief Conservator of Forests (WL), Assam

Copy to the Principal Chief Conservator of Forests, Assam, Rehabari, Guwahati-8
for favour of kind information

[Signature]
Principal Chief Conservator of Forests (WL), Assam

MEMORANDUM OF UNDERSTANDING
FOR THE DEVELOPMENT AND OPERATION OF
"CENTER FOR WILDLIFE REHABILITATION AND CONSERVATION" IN
ASSAM

This Memorandum of Understanding (MoU) is entered into on this Tenth day of April, 2001

BETWEEN

The DEPARTMENT OF FORESTS, GOVERNMENT OF ASSAM, hereinafter referred to as the "FIRST PARTY" (which term and expression shall unless repugnant to the context mean and include its successors, administrators, executors, legal representatives and assigns) on the ONE PART

AND

The WILDLIFE TRUST OF INDIA, hereinafter referred to as the "SECOND PARTY" (which term and expression shall unless repugnant to the context mean and include its successors, administrators, executors, trustees, legal representatives and assigns) on the OTHER PART

WHEREAS the FIRST PARTY is a government department engaged in the administration of protection and management of wildlife in the state of Assam, and matters incidental or related thereto.

AND WHEREAS the SECOND PARTY is a charitable trust registered under the Income Tax Act 1961 under Section 12 (A), and is engaged in the promotion of conservation and welfare of wildlife and matters incidental thereto.

AND WHEREAS the FIRST and SECOND PARTIES are desirous of establishing a center for housing temporarily disadvantaged wild animals which may be injured, maimed, orphaned, sick, straying or in any form of distress and to provide them with food, shelter, veterinary care, treatment and other rehabilitation measures, till they are fit to be released into their appropriate natural habitats.

AND WHEREAS both parties desire to develop and operate the "CENTER FOR WILDLIFE REHABILITATION AND CONSERVATION" in Assam, desire to put their agreement in writing for that purpose.

NOW THEREFORE THIS MOU WITNESSETH AS UNDER:

ARTICLE I

Both parties agree that the following are the objectives and scope of work of the center:

(a) Rescue temporarily disadvantaged wild animals, which have been confiscated, injured, maimed, orphaned, sick and/or astray,

(b) Optimise the conservation and re-introduction potential of the rescued wild animals,

- (c) Promote ethical and humane methods of handling, maintenance in captivity, and veterinary care.

- (d) Release back to the wild with re-introduction and monitoring programs developed for the rescued wild animals.

ARTICLE II

Both the parties shall collaborate at all stages of the execution of all mutually agreed activities, and shall not withhold from each other relevant information or otherwise hinder the execution of these activities.

ARTICLE III

- (a) The FIRST and SECOND PARTIES, for the purpose of the efficient management of the center and its programmes, agree to constitute a 'Governing Council' consisting of the following members:

1. Secretary, Forest Department, Government of Assam	-	Chairman
2. Principal Chief Conservator of Forests, Forest Department, Government of Assam	-	Member
3. Chief Wildlife Warden, Forest Department, Government of Assam	-	Member
4. Field Director, Kaziranga National Park, Forest Department, Government of Assam	-	Member
5. Chairman, Board of Trustees, Wildlife Trust of India	-	Member
6. Trustee, Wildlife Trust of India	-	Member
7. Executive Director, Wildlife Trust of India	-	Member
8. Representative, Wild Rescue program, Wildlife Trust of India	-	Member
9. Faculty member of the College of Veterinary Sciences, Guwahati, with specialization in wildlife surgery	-	Member
10. Faculty member of the College of Veterinary Sciences, Guwahati, with specialization in wildlife pathology	-	Member
11. Faculty Member of a leading local institution, Guwahati, with specialization in animal ecology or wildlife biology	-	Member
12. Representative, local NGO with experience in wildlife rehabilitation	-	Member
13. Project Leader	-	Member Secretary

- (b) In addition to the above, the 'Governing Council' may identify people of repute with expertise of topical relevance and invite them to the 'Governing Council' meetings.

- Visit*
(c) The institutions / NGOs at sl. no. 11 and 12 above will be selected by the 'Governing Council'. The representatives thereof and of sl. 9 and sl. 10 shall be nominated by respective Heads of the institutions / NGOs in consultation with the Chairman of the 'Governing Council'. The 'Center Manager' of the "Center for Wildlife Rehabilitation and Conservation" shall attend the meetings of 'Governing Council', whenever necessary, as an ex officio invitee.

• ARTICLE IV

- a) The 'Governing Council' shall determine its overall responsibilities during the inaugural and ensuing meetings, but these shall include:
1. Formulation of the policies, guidelines, rules and regulations and matters relating thereto of the center;
 2. Overseeing the center and its entire programme;
 3. Review of the progress of the implementation of the projects of the center from time to time;
 4. Issue of suitable directions / advice to the center management
 5. Such other matters as may arise.
- (b) The 'Governing Council' should meet at least twice a year.

ARTICLE V

The FIRST PARTY shall nominate an official of the Forest Department, Government of Assam, in consultation with the SECOND PARTY, as 'Project Leader'. The 'Project Leader' shall have overall responsibility in respect of the implementation of the decisions and directions of the 'Governing Council' and the objectives and programmes of the center. He will not, however, be involved in the day-to-day management of the center and its projects. The FIRST PARTY shall bear all costs relating to the 'Project Leader', including the salary, per diem and travel expenses etc.

ARTICLE VI

The SECOND PARTY shall engage appropriately qualified and experienced project personnel, who are acceptable to the FIRST PARTY, for the management of the center and implementation of the objectives of the center and its projects and programmes. These personnel include a 'Center Manager' and a 'Staff Veterinarian'. The 'Center Manager' will primarily be responsible for the management of the center and execution of its programmes and projects, subject to the overall guidance of the 'Project Leader'. The 'Staff Veterinarian' will be responsible for the veterinary care, treatment and husbandry of the temporarily disadvantaged wild animals. The 'Staff Veterinarian' will report to the 'Center Manager'. The SECOND PARTY shall further engage for the center such other personnel as maybe required for, e.g. assistants / drivers / keepers / watchmen etc. All costs including the salaries, per diem and travel expenses etc. of the staff engaged for the center and its projects and programmes, shall be borne by the SECOND PARTY, unless specifically mentioned otherwise. The FIRST PARTY shall have no obligation / liability for the engagement / regularization of the services of such staff during or after the expiry of this MoU / its projects. All liabilities, if any, arising out of the engagement of such staff during the period of this MoU will be borne by the SECOND PARTY. However, once their services are terminated / this MoU ceases to exist, all liabilities on the SECOND PARTY will also cease to exist.

ARTICLE VII

The FIRST PARTY shall appoint an officer from the Forest Services of the state of Assam, who is acceptable to the SECOND PARTY, as 'Deputy Manager' of the center. He will assist the 'Center Manager' in the discharge of his duties. The FIRST PARTY shall bear all costs relating to the 'Deputy Manager', including the salary, per diem and travel expenses etc. However, any travel and subsistence costs incurred on the 'Deputy Manager' during rescue, rehabilitation and re

introduction operations of the center, will be borne by the center.

ARTICLE VIII

- (a) The center shall be called "Center for Wildlife Rehabilitation and Conservation" i.e. "CWRC".
- (b) The location and area under the center will be decided by the 'Governing Council' on the basis of a report of a site selection committee.
- (c) The center shall provide cages for quarantine, intensive care and rehabilitation of the rescued wild animals, which shall include 5 cages for carnivores, 6 cages for ungulates, 3 cages for primates, 3 cages for birds and 3 cages for reptiles. The details of the cage designs for the different species, veterinary facilities, staff accommodation, food store, other accessory facilities and equipment to be provided at the center will be approved by the 'Governing Council'.
- (d) All the necessary permits for the establishment of the aforesaid center and to fulfil the objectives of the center by the center management, including any such other complementary actions as may be initiated elsewhere in Assam in relation to the scope of work of the said center shall be provided by the FIRST PARTY.
- (e) The center shall be provided with water and electricity supplies, telecommunication infrastructure, motorable roads and sewage facilities, which shall be facilitated by the FIRST PARTY, while the SECOND PARTY shall incur all expenditure on the above.
- (f) The development of satellite rescue centers may also be considered by the 'Governing Council'.

ARTICLE IX

- (a) The SECOND PARTY will administer the accounts and expenses of the center, which shall be approved by the 'Governing Council'. The SECOND PARTY will open a bank account to manage the accounts and expenses of the center till the period of the MoU and all accounts relating to the center will be audited by an authorized chartered accountant.
- (b) The estimated establishment costs in the first year are Rs. 28,50,000 (Rupees Twenty-eight lakhs and fifty thousand). The estimated recurring costs per annum from the first year are Rs. 10,50,000 (Rupees ten lakhs and fifty thousand).
- (c) The SECOND PARTY will bear all the budgeted recurring and non-recurring costs of the center during the period of the MoU.

ARTICLE X

Any dispute between the parties in respect of this MoU and its implementation shall first be placed before the 'Governing Council' for amicable resolution. However, failing such resolution, the decision of the Chief Secretary, Government of Assam shall be final.


ARTICLE XI

This MoU shall come into force with effect from the date of its signature and shall be valid for a period of three years unless either of the parties gives to the other a written notice, three months in advance of its intention to terminate the MoU anytime before the period of expiry of the MoU. The MoU may be renewed for a further period on mutual consent of both parties. It may also be modified or amended by the mutual consent of both the parties.


IN WITNESSES WHEREOF, the PARTIES above named have hereto signed this MoU and affixed thereto their seals.

Executed at New Delhi on the day and month and year herein above written

FIRST PARTY

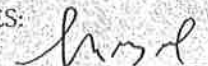

Name in full: ALOK JAIN
Designation: Principal Secretary
Govt of Assam

SECOND PARTY



Name in full: ASHOK KUMAR
Designation: TRUSTEE
Wildlife Trust of India

WITNESSES:

(1.)


ASHOK KUMAR
TRUSTEE
Wildlife Trust of India
10 April 2001

(2.)


10/4/2001
Dr. ANAND RAMANATHAN,
Programme Officer,
Wildlife Trust of India

Dispur, 10/2001/73,

Dated Dispur, the 16th Aug. 2001.

From :- Shri B.B. Majumdar, IAS,
Secretary to the Govt. of Assam.

To

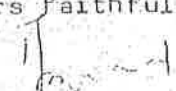
The Executive Director,
Wildlife Trust of India,
PO Box - 200,
New Delhi - 110 003.

Sub :- Permission to establish the "Center for
Wildlife Rehabilitation and Conservation" in
a three-hectare of land situated in the Panbari
reserve forest.

Sir,

With reference to the subject cited above, I
am directed to say that in pursuance of Article VIII of the
Memorandum of Understanding (MOU) enclosed herewith,
(Annexure A), dated 10th April, 2001 entered into between
Department of Forests, Government of Assam and Wildlife
Trust of India and in consonance with the resolution
passed at the first governing council meeting of "Center
for Wildlife Rehabilitation and Conservation" held at
Guwahati on 1st June, 2001, Wildlife Trust of India or
the Second Party as per the MOU is hereby permitted to
establish the "Center for Wildlife Rehabilitation and
Conservation" in a piece of land measuring 3.05 hectares
situated in the Panbari reserve forest, bound by a red
line in a map enclosed herewith (Annexure B), solely for
the purpose of fulfilling the objectives and scope of work
related thereto to the center, laid down in the aforesaid
MOU.

Yours faithfully,


Secretary to the Govt. of Assam,
Forest Department, Dispur.

Contd...P/2..

GOVERNMENT OF ASSAM
DEPARTMENT OF ENVIRONMENT AND FORESTS
DISPUR : GUWAHATI

No. FRW. 17/2001/123

Dated Dispur, the 12th July '07.

From : Dr. A. J. Choudhury, ACS,
Joint Secretary to the Govt. of Assam,
Environment and Forest Department.

To : The Chief Conservator of Forests (Wildlife),
Assam, Rehabari, Guwahati - 812

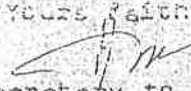
Sub : CAMPUS EXTENTION PROPOSAL FOR CENTRE FOR
WILDLIFE REHABILITATION AND CONSERVATION ATC
(CWRC) AT PANBARI RESERVE FOREST BOKAKHAT.

Ref : Your letter No. WL/FG.5/2003/Rescue Animals
dtd. 7.5.07.

Sir,

With reference to your letter quoted above
on the subject, I am directed to inform you that the Government
has no objection for extention of "Centre for Wildlife Rehabilitation
and Conservation (CWRC)" proposed additional area
of 342.1 ha adjacent to the western boundary of present
campus of Panbari Reserve Forest.

Yours faithfully,


Joint Secretary to the Govt. of Assam
Environment and Forest Department

GOVERNMENT OF ASSAM
DEPARTMENT OF ENVIRONMENT & FORESTS
DISPUR :: GUWAHATI

No. FRW. 17/2001/122

Dated Dispur, the 12th July '87.

From : Dr. A. L. Choudhury, ACS,
Joint Secretary to the Govt. of Assam,
Environment and Forest Department.

To : The Chief Conservator of Forests (Wildlife),
Assam, Renabari, Guwahati - 86

Sub : RENEWAL OF MOU FOR THE MANAGEMENT OF CENTRE FOR
WILDLIFE REHABILITATION AND CONSERVATION (CWC),
AT BARJURI, KAZIRANGA NATIONAL PARK.


Re: Your letter NO. UL/FG.5/2003/Reserve Animals
etc. 4.5.87.

Sir,

With reference to your letter cited above,
I am directed to say that, the MOU with "Centre for Wild
life Rehabilitation" may be renewed for five years.

You are requested to do the needful.

Yours faithfully,


Joint Secretary to the Govt. of Assam,
Environment and Forest Department.