

Computer No. 153933

**Government of India
Ministry of Environment, Forest and Climate Change
CENTRAL ZOO AUTHORITY**

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CGO Complex, Lodhi Road, New Delhi – 110 003,
Telephone: +91-11-24367846/51/52, E-mail: cza@nic.in
Dated **March 31, 2021**

To
The Chief Wildlife Warden,
Department of Environment and Forest,
Aranya Bhavan, Panjabari,
Guwahati – 781 037, Assam,
E-mail: pccf.wl.assam@gmail.com

Subject: Renewal of recognition of the Assam State Zoo cum Botanical Garden, Guwahati, Assam, under Section 38-H of the Wild Life (Protection) Act, 1972 – regarding

Reference:

1. This Office Memorandum F.No.7-10/2020-CZA(PART-I) dated August 25, 2020
2. This Office letter F.No.21-2/2019-CZA(AK)/2039/2020 dated January 6, 2020
3. This Office letter F.No.19-62/92-CZA(27)(Vol-VIII)(BKG)/2652/2016 dated September 21, 2016
4. Application dated February 3, 2020 from the DFO, Assam State Zoo Division, Guwahati

Sir,

With reference to above, the undersigned is directed to inform that recognition of the Assam State Zoo cum Botanical Garden, Guwahati, under Section 38-H of the Wild Life (Protection) Act, 1972, was valid till August 28, 2019. Application dated February 3, 2020 received in this office from the DFO, Assam State Zoo Division, Guwahati, for renewal of recognition. Shri T. Ajay Kumar, Evaluation and Monitoring Assistant in Office of the CZA deputed by this office has evaluated the zoo on January 24 to 27, 2020. Copy of the Evaluation Report is enclosed herewith for your perusal and needful action.

2. Evaluation Report of the Assam State Zoo cum Botanical Garden, Guwahati, was placed before the Technical Committee in its 96th Meeting held on July 30, 2020. The Technical Committee, after detailed deliberation, made its recommendation to the Central Zoo Authority.

3. This office issued Office Memorandum F.No.7-10/2020-CZA(PART-I) dated August 25, 2020 regarding renewal of recognition of the zoo. Subsequently, the Central Zoo Authority, in its 37th Meeting held on December 7, 2020, in exercise of powers conferred under sub-section (1), (3) and (4) of Section 38-H under the Wild Life (Protection) Act, 1972, approved recommendation of the Technical Committee.

4. The Central Zoo Authority has regularised the period after August 28, 2019 and renewed recognition of the Assam State Zoo cum Botanical Garden, Guwahati, as a Large Zoo for a period up to **August 19, 2023** subject to compliance with following conditions as per the Recognition of Zoo Rules, 2009 (RZR) and mid-term evaluation of the zoo.

Sr. No	Norm No. under Rule 10	Condition	Time period to comply
1.General requirements			
1	1(2)	In compliance with the Orders issued by the National Green Tribunal, concrete around tree base should be removed in many trees on zoo campus. Also, gap prescribed in the said order should be maintained.	Immediately.
2	1(3)	Visitors' movement is not regulated at few animal enclosures. Service entry is from visitors' path in the enclosure housing Yellow Monitor Lizard, Four-horned antelope, Indian crested porcupine, Leopard Cat. Visitors' path may be realigned to ensure that it does not exceed 25% of enclosure's periphery. This may be achieved by hedge plantation.	Two months
3	1(5)	Inspection path is not available throughout the length of peripheral wall of the zoo. It may be provided for regular monitoring by staff.	Four months
4	1(6)	Residence adjacent to Ration Store may be separated from zoo.	One year
5	1(7)	Burning of leaf and litter should be discouraged in the zoo premises. Compliance should be ensured with the Waste Management Rules noticed by the Central Government in 2016.	May be phased out
2.Administrative and Staffing Pattern			
6	2(2)	Requisite scientific and technical staff such as the Biologist, the Curator and the Education Officer are not appointed in the zoo. This should be addressed on priority.	Six months
3.Development and Planning			
7	3(6) & 4(2)	After CZA's ban on elephants from collection of zoos, as per the MoU signed between the CZA and the Government of Assam, the Assam State Zoo shall provide area of 10 Hectare and shall submit design of elephant enclosure for approval of the CZA. However, conditions agreed by the Zoo Operator are yet to be complied. Compliance with the MoU signed on April 11, 2014 should be submitted to the CZA.	One month
8	3(7)	Elephants housed in the zoo are both on and off-display for part of the day.	

Sr. No	Norm No. under Rule 10	Condition	Time period to comply
9	3(8)	It is observed that on accepting rescued wild animals pertaining to endangered species, report is not submitted to the Central Zoo Authority (CZA). Also, in case of rescued animals that require long-term care beyond thirty days, proposal is not submitted to the CZA for acquisition under Section 38-I of the <u>Wild Life</u> (Protection) Act, 1972. These lapses should be rectified with immediate effect and proposal for all wild animals that require long-term care should be submitted to the CZA for consideration. Fit animals should be transferred to their natural habitat following the protocol.	Immediately
4. Animal housing, display of animals and animal enclosures			
10	4(2)	Double door service entry shall be provided in the Aviary housing Greater Adjutant Stork to prevent accidental escape of birds.	Three months
11	4(2)	Extra care should be taken to minimise the noise due to construction activity nearby animal enclosures. Huge machinery may be avoided to the possible extent.	Immediately
12	4(2)	Keeper's gallery is absent in old enclosure housing Common Leopard. It should be phased out at the earliest by means of <u>a</u> enclosure meeting extant design and dimension prescribed.	One year
13	4(2)	Dimension of paddock in enclosure housing Brow-antlered Deer appears inadequate. Visitors' path extends beyond 50 % of periphery. Approved design, if any, be forwarded to the CZA for verification. Damaged portion of front barrier should be repaired.	One month
14	4(2)	Certain old crumbling structures in enclosure housing Binturong and Barking Deer are not congenial to house animals. Roof is leaking and entry to Animal House is extremely small. Such enclosures should not be continued to house captive animals. They shall be phased out.	One year
15	4(2)	Light and ventilation are highly inadequate in enclosure housing White Tiger. This shall be corrected.	Three months
16	4(2)	In case of Himalayan Black Bear, each animal should be provided with independent feeding / retiring cell.	Six months
17	4(2)	Elephants [1 <u>male</u> : 3 female] are chained by iron chains without any cushion and more than one limb. Compliance with guidelines issued by the CZA or upkeep of elephants in zoos should be ensured.	Immediately
18	4(3)	Old enclosure housing Black Panther is highly rusted and fraught with danger. Roof has cracks, poor ventilation, no provision for squeeze cage in the animal house and liquid waste flows in the open. It should be addressed at the earliest.	Three months

Sr. No	Norm No. under Rule 10	Condition	Time period to comply
19	4(3)	It is observed that there is no provision in many animal enclosures for Animal Keeper to close the service entry from inside the keeper's gallery. Safety audit of animal enclosures should be carried out by the zoo and rectify the lapses.	Three months
20	4(3)	Withdrawal area for all captive animals should be ensured in respective enclosures.	Immediately
21	4(8)	Enclosure for Hoolock Gibbon and Aquarium under construction. Prior approval of design from the CZA should be ensured for construction of enclosure for any endangered species.	Immediately
22	4(9)	Stand-off barrier is absent in case of enclosure housing Assam roofed turtle. It should be provided. Whereas hedge plantation shall be provided in the stand-off barrier at the Aviary housing Greater Adjutant Stork, Yellow Monitor Lizard, Black Panther.	Two months
5.Upkeep and healthcare of animals			
23	5(2)	Daily observation on inspection of meat provided to carnivores is not being recorded. This record should be maintained.	Immediately
24	5(2)	Randomly, food and water samples should be tested.	Three months
25	5(3)	Present day to day supply of ration may be enhanced to storage to meet exigencies. Store constructed for this purpose may be used.	Six months
26	5(3)	Location of Meat Processing Room should be identified closer to periphery. Existing one is at the centre. Provision to take bath before and after processing meat, fly-proof arrangement, gumboots, gloves should be provided to meat handlers.	One year
27	5(3)	Meat processing is at two places including kitchen. Dedicated meat processing room with fly proof arrangement may be used for this purpose.	Six months
28	5(3)	Porridge is being fed to Himalayan Black Bear on floor of animal house. Hygienic alternative should be adopted.	Immediately
29	5(4)	Enclosure housing Lion, One-horned Rhinoceros and Blackbuck does not have provision for kraal. Also, one Leopard under treatment is housed together. It should be addressed.	Six months
30	5(4)	Kraal is not functional in Blackbuck enclosure. It should be addressed.	Immediately
31	5(5)	Liquid discharge from few animal enclosures leads to open drain. Also, liquid discharge from beef processing room leads to municipal drain. Waste Management in the zoo may be carried out in strict compliance with statutory provisions. Untreated waste should not be let out.	Immediately

Sr. No	Norm No. under Rule 10	Condition	Time period to comply
32	5(5)	Massive open dump of leftover food and other solid waste collected from animal enclosures is at middle of the zoo. Effective and hygienic practices should be explored and adopted to meet statutory requirement.	Immediately
33	5(5)	Shed antlers of Brow antlered Deer are piled up over years without any record. Not being declared to the CWLW of the State. They should be declared and disposed.	Immediately
34	5(6)	Few Animal Keepers are in charge of three to four enclosures. This shall be rationalised.	Three months
35	5(9)	Screening of all staff involved in upkeep and healthcare of captive animals against zoonotic diseases should be done annually.	annually
36	5(10)	All the records prescribed in the Guidelines for Establishment and Scientific Management of Zoos in India (2008) should be mandatorily maintained. Presently Keeper's Diary is not being maintained.	Immediately
37	5(10)	Marking of captive animals should be done on priority. Identification mark should be recorded on respective Animal History Card.	Six months
38	5(10)	Follow-up action to death of captive animals is not recorded. Example, death due to drowning in wet moat, killed by predator, collision with mesh, infighting, Tuberculosis, etc. Follow-up action should be taken as well as recorded promptly.	Immediately
6.Veterinary and infrastructure facilities			
39	6(2)	Technically qualified person to operate diagnostic tools should be appointed.	Six months
40	6(2)	Batch number is not recorded in the register meant for recording consumption of chemical immobilization drugs. This should be corrected.	Immediately
41	6(3)	No provision of squeeze cage in enclosure housing Black Panther. Action may be taken up by the zoo.	Two months
42	6(3)	Quarantine area is attached to animal enclosure housing captive animals (Greater Adjutant Stork) on display to public. This should be corrected.	
43	6(5)	Veterinary Support Staff required for a large zoo is not appointed and the same should be appointed.	Six months
7.Post-mortem and disposal of carcasses of animals			
44	7(2)	Certain post-mortem reports were not found during evaluation [Himalayan Palm Civet on 29-6-2018; Striped Hyena on 6-12-2018; Great White Pelican on 23-2-2019; Golden Langur on 21-3-2019; Serow on 10-1-2019]. Records should be maintained promptly.	Immediately

Sr. No	Norm No. under Rule 10	Condition	Time period to comply
45	7(4)	Carcass disposal is being done in the open and in an unhygienic manner. Incinerator installed on zoo campus is not functional. Necessary action may be taken up by the zoo to	
9.Acquisition and breeding of animals			
46	9(2)	Requisite permission under the WLPA, 1972 is not produced for acquisition and transfer of animals since April 1, 2019 till date of evaluation as reported is hereunder: Oriental Pied Hornbill [1:0:0], Himalayan Griffon [0:0:2], Hill Myna [0:0:1], White breasted water hen [0:0:4], Pariah Kite [0:0:1] respectively. This should be clarified by the zoo management.	
47	9(6)	It is recorded that one female Golden Langur under the planned breeding programme has underwent surgery for tumour. Health assessment of individuals identified for the programme should be examined frequently.	
48	9(10)	Escape of seven Leopard Cats is recorded. However, any follow-up action, if any, is not recorded. This should be explained to the CZA.	Immediately
11.Education and outreach activities			
49	11(2)	In general, and with specific reference to the Walk-through Aviary, physical handling of animals should not be permitted as part of education.	Immediately
12.Visitors' facilities			
50	12(1)	Public Toilet near Walk-through Aviary and few other places are not in functional condition. It should be repaired.	Three months
51	12(1)	Receipt of payment is not being issued to public using toilet on zoo premises paying Rs.5. This should be corrected.	Immediately
Rule 11. Maintenance of records and submission of inventory:			
52	11(1)	It is observed that factual status on mortality of captive animals housed in the zoo is not being reported in annual inventory submitted to the CZA. During the year, death of Common Sand Boa, Mute Swan, Himalayan Palm Civet were not reported to the CZA. This ambiguity should be corrected.	Immediately
53	11(2)	Statutory Annual Report of the zoo should be submitted to the CZA by due date of respective financial year.	By 30 th June

5. A compliance report to the Central Zoo Authority on implementation of the aforesaid conditions shall be submitted by the zoo within three months of issue of this letter followed by half-yearly report.

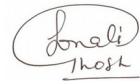
6. The renewal of recognition of the Assam State Zoo cum Botanical Garden, Guwahati, for period beyond August 19, 2023 as a Large Zoo would be considered on the basis of compliance of the conditions stated above and general performance of the zoo.

7. The recognition of the Assam State Zoo cum Botanical Garden, Guwahati, shall be revoked by the Central Zoo Authority at any point of time if the Zoo Operator is found not complying with the stipulated conditions.

This issues with approval of the competent authority.

Encls. As above

Yours sincerely



(Dr. Sonali Ghosh)
Deputy Inspector General of Forests

Copy for information / necessary action to:

1. The Principal Secretary to the Government of Assam, Department of Environment and Forest, H-Block, 2nd Floor, Janata Bhawan, Dispur, Guwahati – 781 006, Assam, E-mail: avinashp.joshi@nic.in , envtforest2016@gmail.com [Zoo Operator of the Assam State Zoo cum Botanical Garden, Guwahati, under Rule 2(m)(III) of the Recognition of Zoo Rules, 2009]

2. The Divisional Forest Officer, ASZ Division and Officer in-charge, Assam State Zoo cum Botanical Garden, Radha Gobinda Baruah Road, Guwahati – 781 005, Assam, E-mail: dfo.assamzoo@gmail.com

3. The DPA, O/o CZA – to update database and to upload on official website of the CZA.

4. File No. 19-62/92-CZA(27) – for record

sd/-

(Dr. Sonali Ghosh)
Deputy Inspector General of Forests



GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
Central Zoo Authority

F. No. 19-62/92-CZA(27)(Vol. VIII)(BKG)/2652/2016

Email
DATE: 21.09.2016

To

The Divisional Forest Officer
Assam State Zoo
Guwahati 781 005
Assam

Sub:-Renewal of recognition to Assam State Zoo cum Botanical Garden, Guwahati, Assam under Section 38H of the Wild Life (Protection) Act, 1972 beyond the period of 31.12.2015- Reg.

Sir,

Reference is invited to your letter No. Z/Evaluation & Recog./2015-16/1115-16, dated 20th May, 2016 seeking grant of renewal of recognition to Assam State Zoo cum Botanical Garden, Guwahati, Assam under Section 38H of the Wild Life (Protection) Act, 1972 beyond the period of 31.12.2015- Reg.

The evaluation of the Assam State Zoo cum Botanical Garden, Guwahati, Assam was carried out by Dr. Brij Kishor Gupta, Evaluation & Monitoring Officer and Dr. Raj Kumar Jadhav, Director, Rajiv Gandhi Zoo, Pune on 24-25 May, 2016. The evaluation report of the Assam State Zoo cum Botanical Garden, Guwahati, Assam as submitted by the evaluating officers was considered by the Technical Committee in its 79th Meeting held on 24th August, 2016.

The Central Zoo Authority has decided to grant renewal of recognition to Assam State Zoo cum Botanical Garden, Guwahati, Assam as a " Large Category Zoo" under Section 38H of the Wild Life (Protection) Act, for a period up to 28.08.2019 subject to the compliance of the following directives under the Recognition of Zoo Rules, 2009 and mid-term evaluation of the zoo:-

S. No.	Norm No.	Particulars of Suggestions	Time Required to Comply
3. Developments and planning			
1	3.5	The stagnated rain water with full of algae was seen in the Adjutant stork aviary. The same was found not hygienic to the birds. The aviary should have proper drainage of excess rain water. The water filled in the aviary should have got tested.	Three months
4. Animal Housing, display of animals & animal enclosures			
2	4.2a	The Assamese roof turtle enclosure was observed hanging iron wires, the same should be removed.	With immediate effect

3	4.2b	The moat provided as barrier in the Golden langur exhibit should be repaired immediately and animals released into the exhibit rather keeping them in small transport cages.	Three months
4	4.3c	The reptile house should house the animals as prescribed by the CZA and that all the animal exhibits should be enriched.	Six months
5	4.10	The signage provided at aviaries does not contain the distribution of birds. The same should be rectified.	With immediate effect.
5.Upkeep and healthcare of animals			
6	5.2	The diet chart for all species of wild animals housed in the zoo should be prepared as per the CZA publication "Standardization of Animal Diets in Indian Zoos" available on the CZA website and also in consultation with respective faculties of Assam Veterinary College, Khanpara, Guwahati, after referring to diet charts of various zoos in the country.	With immediate effect.
7	5.5	The zoo premises be maintained in a hygienic manner. Proper disinfection of the animal houses and enclosures be carried out periodically. Proper cleaning of the animal night shelter and feeding kraals be carried out every day. The animal enclosure, including moats, should be properly cleaned everyday and be scanned for any foreign objects dangerous to the health of the animal. The disinfection and daily cleaning should be carried out as per guidance and under supervision of the Veterinary Officer	With immediate effect
8	5.6	General health examination of all the animals housed at the zoo be carried out on the priority basis and remedial measures be taken immediately, in consultation with specialists of Assam Veterinary College, if required for any of the wild animals.	With immediate effect
9	5.8	De-worming and vaccination schedule be drawn up. It should be prominently displayed in the veterinary hospital and Keepers Gallery of the animal enclosure. The de-worming and vaccination be carried out by the Veterinary Officer as per this schedule and the records thereof be maintained properly.	With immediate effect

10	5.8	The animal of prolifically breeding species which are beyond the carrying capacity of the zoo, should be released in the wild as per the IUCN/CZA guidelines, if it is a local species of the range area, otherwise, it be transferred to a CZA recognized zoo/rescue centre.	Six months
11	5.10	The zoo should maintain detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the keeper's diary, daily reports, animal history cards and treatment cards, as per the standards and formats specified by the Central Zoo Authority.	With immediate effect
6. Veterinary and Infrastructure facilities			
12	6.6b	The basic diagnostic facilities available at the Veterinary Hospital were found not utilized. The same should be strengthened and utilized.	With immediate effect.
Others			
13		<p>I. In case of major maintenance work being carried out in any animal enclosure, the animal should be, first of all, properly housed in any other vacant enclosure so that the animal is not put to undue stress and physiological/behavioural discomfort.</p> <p>II. The zoo Operator should stop parking vehicles in front of Golden langur exhibit as it is disturbing the animals housed therein.</p> <p>III. The ill hybrid lions received from Moonlight Circus and presently housed in Lion exhibit at the zoo should be shifted to off-exhibit facility or a recognized rescue centre housing the circus animals.</p> <p>IV. The ongoing construction work for Stump-tailed macaque and Nocturnal house not found to be constructed with quality material.</p> <p>V. The feed store building funded by the CZA should be utilized by the zoo to store animals feeds.</p> <p>VI. The domestic animal like Mithun should be removed from the zoo.</p> <p>VII. The zoo should carry out disinfection of the animal houses periodically.</p> <p>VIII. The Zoo should take immediate measures</p>	<p>With immediate effect</p> <p>One Month</p> <p>With immediate effect</p> <p>With immediate effect</p> <p>With immediate effect</p> <p>With immediate effect</p> <p>With immediate effect</p>

		to control the population of prolifically breeding species (Spotted deer, Sambar & Barking deer) which are beyond the carrying capacity of the zoo.	Three months
	IX.	The stand-off barrier at all animal exhibits should be provided of the size as prescribed by the CZA.	Six months
	X.	The zoo should plant hedge in between stand-off barrier and enclosure, at most of the places.	With immediate effect
	XI.	The zoo should maintain detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the Keeper's Diary, Daily Reports, Animal History Cards and Treatment Cards, as per the standards and formats specified by the Central Zoo Authority.	With immediate effect

A half yearly report regarding progress made in implementation of the aforesaid condition should be submitted to the Central Zoo Authority.

Grant of renewal of recognition to Assam State Zoo cum Botanical Garden, Guwahati, Assam beyond the period of 28 August, 2019 would be considered on the basis of compliance of the condition stated above and general performance of the Zoo at that point of time.

The recognition to the Assam State Zoo cum Botanical Garden, Guwahati, Assam shall be revoked by the Central Zoo Authority, at any point of time if the Zoo Operator is found not complying with the above stipulated conditions.

Yours faithfully,



(Dr. D. N. Singh)
Member Secretary

Copy to:-

1. The Chief Wildlife Warden, Government of Assam, Guwahati, Assam - for information and with a request that the stipulated conditions may be got implemented.
2. Mr. Vivek Goel, DPA, CZA.



(Dr. D. N. Singh)
Member Secretary



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GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
Central Zoo Authority



जहाँ है हरियाली।
वहाँ है खुशहाली।।

THROUGH REGISTERED POST

F. No. 19-62/92-CZA(27)(Vol. V)(M)/2071

DATE: 21.12.2011

23

To

The Divisional Forest Officer
Assam State Zoo Division,
Guwahati - 5 (Assam).

Sub:- Renewal of recognition to the Assam State Zoo-cum-Botanical Garden, Guwahati beyond the period of 30.06.2011 under Section 38H of the Wild Life (Protection) Act, 1972 - Regarding.

Sir,

Reference is invited to your letter No. Z/Evaluation & Recog./2010-11/1214-15 dated 02.05.2011 seeking renewal of recognition to the Assam State Zoo-cum-Botanical Garden, Guwahati beyond the period of 30.06.2011 under Section 38H of the Wild Life (Protection) Act, 1972.

The evaluation of the Assam State Zoo, Guwahati was carried out Sh. P. C. Tyagi and Dr. P. K. Malik on 14th - 15th September, 2011. The evaluation report of the Assam State Zoo, Guwahati as submitted by the evaluating officers was considered by the Technical Committee in its 60th Meeting held on 14th December, 2011.

The Central Zoo Authority has decided to grant of recognition to Assam State Zoo, Guwahati as a Large Category Zoo under Section 38H of the Wild Life (Protection) Act, for a period up to 31st December, 2015 subject to the compliance of the following directives under the Recognition of Zoo Rules, 2000 and mid-term evaluation of the Zoo:-

S.No.	Norm No.	Conditions stipulated	Time period to comply
1. General requirements			
1	1 (1)	The zoo shall establish and sustain population of physically, genetically and behaviourally healthy animal for the purpose of wildlife conservation. There are few primate species which are not present in the natural social grouping. Efforts should be made to acquire more animals from other zoos to exhibit them in social groups.	With immediate effect
2	1 (4)	The Zoo has 2 meters high perimeter wall which should be continuously maintained so that it	Within six months

		safeguards against unregulated access of the visitors and prevents animal from injury, pilferage and predation. The damaged part of the wall should be maintained.	
3	1 (6)	<p>The residential colony of the zoo is located at the periphery of the zoo which is sufficiently away from the animal enclosures and separated by a boundary wall with a minimum height of 2 meters from the ground level. However certain parts of the wall have not been constructed.</p> <p>The entry to the residential colony is proposed to be connected separately to the public road outside the zoo. The work should be considered as priority and completed as early as possible.</p>	Within three months
4	1 (7)	<p>The zoo should take action for management of the solid and liquid waste generated and strengthen the disposal system for maintaining sanitation and hygiene in the zoo.</p> <p>The zoo has proposed in its master plan to strengthen the solid and liquid waste and effluents disposal and management system by constructing two new liquid treatment plants. This work should be completed early.</p>	With immediate effect
2. Administrative and Staffing Pattern			
5	2(2)	The zoo should provide adequate scientific and technical staff to support the officer in-charge of the zoo. The zoo does not have post of Biologist and even additional responsibility of this work has not been given to any officer.	With immediate effect
3. Development and Planning			
6	3(1)	The zoo should submit amended copies of the master plan for the approval of the Central Zoo Authority.	Within one month
7	3(6)	The zoo has prepared a collection plan which forms part of the master plan and has been submitted to CZA for approval. In this plan emphasis should be given on breeding of animals native and endemic to the region and specifically endangered species of the area. Breeding of exotics should not be given priority.	With immediate effect
8	3(7)	The Zoo has received large number of rescued wild animals (230 in last one year). Majority of such animals were released in the wild after treatment and general medical care for rehabilitation. Some animals needing life care were retained. However, facilities for housing rescued animals are inadequate and deficient. Zoo has been identified as one of the off display.	Within one year

		lifetime care facility for rescued animals and must take action for establishment of infrastructure for housing these animals.	
4. Animal housing, display of animals and animal enclosures			
9	4(1)	The zoo has few enclosures which are designed inappropriately and out of place with the natural environment and does not merge with nature. These enclosures should be redesigned and modified for housing the animals as per norms.	Within one year
10	4(6)	A large no of enclosures require improvement which are proposed in the Master Plan. The enrichments should be enhanced for meeting the specific behavioral requirements of the animal.	Within one year
11	4(7)	There is adequate screening between the enclosures except few of the primate enclosures are cluttered and the deer enclosure are also scattered and needs to be placed in one section (Proposed in the master plan). The Bear and Leopard enclosures are adjacent to each other and needs to be separated by shifting leopard to the available vacant carnivore enclosure.	Within three months
12	4 (9)	Some of the Standoff barriers constructed earlier are small, damaged and needs to be redesigned and constructed again to provide greater safety to the visitors. There are some warning Sign Boards for information to the visitors. Additional Sign Boards needs to be placed at various locations and enclosures.	Within three months
13	4 (10)	The Zoo has several signages with are very old and need to be redesigned and set up in appropriate places without affecting view of visitors. A more interactive interpretation facility for dissemination of information on behavior & biology of the animal is required.	Within three months
5. Upkeep and healthcare of animals			
14	5 (1)	The zoo has most of its animal collection in socially and behaviorally viable groups. However, some species like LTM, Assamese macaque, Caped langur, Binturong, Giraffe and African White Rhino are single animals which should be paired urgently.	Within six months
15	5 (2)	The Zoo has a store and kitchen for preparation of food and all animals have a diet schedule which has been carefully prepared to meet the nutrition required for these animals. The food preparation facility needs modernization and requires improvement to maintain strict hygiene to prevent any contamination to the food and a reduction of pests.	Within six months

16	5 (4)	The Zoo has a large number of feral free ranging wild animals like Rhesus macaque, Sambar, Barking deer, Hog deer, Serow, Peafowl and Civet. These animals roam in open woody and grassy patches and generally do not enter any enclosure but arrangements should be made to remove and separate such animals from the exhibit areas of the zoo.	With immediate effect
17	5 (10)	The records on some basic parameters are being maintained presently, however, observation on biological, social behavior and reproductive physiology may be recorded separately for easy reference and retrieval.	With immediate effect
6. Veterinary and infrastructure facility			
18	6 (1)	The zoo does not have adequate quarantine and isolation facilities for animals. These facilities must be setup urgently. There is lack of adequate diagnostic equipment viz. blood and biochemistry analyzer and auto claves which should be procured urgently.	Within months six
19	6(3)	The zoo should improve the post mortem room for animals and setup in patient room and quarantine ward. The veterinary care reference library has to be improved.	Within months six
20	6 (6)	Networking and coordination with Guwahati Veterinary College should be improved and formalized. The zoo should coordinate and network with the Guwahati Veterinary College for regular and periodic health screening of animals and avail specialize diagnostic facilities of the veterinary college.	With immediate effect
9. Acquisition and Breeding of animal			
21	9(9)	The zoo should take necessary steps for controlling the population of prolific breeders especially sambar and spotted deer by adopting appropriate population control measures. A vaccine has recently been developed for control of deer population. The information on this vaccine - GonaCon™ is attached as a Annexure – I.	With immediate effect
10. Research activities			
22	10(1)	Recording of data on social behavior and reproduction biology is being undertaken at a low level. Significant efforts are required to improve research activities in various areas including animal health.	With immediate effect

12. Visitors' facilities			
23	12 (1)	The zoo should develop a visitor circulation plan with identified and demarcated visitor routes and footpaths for regulated flow of visitors in the zoo.	Within three months

Additional recommendations:-

1. VETERINARY SUPPORT AND FACILITIES

The current veterinary hospital and laboratory is inadequate for support of the veterinary medical health care of the animals. Based on our careful observations following recommendations are provided:

- i. Prior to constructing a new facility, plans from existing veterinary hospitals in India and other countries should be evaluated to plan the appropriate facility for Guwahati Zoo.
- ii. The veterinary hospital should minimally have a laboratory, pharmacy, diagnostic and treatment room, surgical suite, holding facilities for animals requiring extensive medical care (these facilities should be tailored to the animals kept at Guwahati Zoo), area for equipment cleaning and storage, and offices for staff.
- iii. Basic hospital and monitoring equipment:
 - refrigerator (5°C)
 - freezer (-17°C)
 - ultra-low (-70°C) for serum banking and storage of diagnostic samples,
 - scales for weighing animals,
 - transponders for animal ID and transponder reader,
 - stethoscope,
 - ophthalmoscope,
 - otoscope,
 - thermometer,
 - capture equipment (i.e., darts and dart projectors),
 - laryngoscope and blades,
 - endotracheal tubes,
 - oxygen support (regulators and demand valves),
 - inhalation anesthesia machine that can support a tiger-sized animal isoflurane vaporizer,
 - anesthesia monitoring equipment (single or multiparameter)
 - pulse oximeter,
 - ECG (blood pressure monitor included),
 - basic surgery instruments,
 - surgical light,
 - autoclave
 - basic dental instruments

iv. Diagnostic support

The ability to make rapid assessments of physiologic status is critical to a good outcome in a sick or injured animal. For this reason basic diagnostic equipment should be available at the park hospital, as well as those that can be used for routine health monitoring. More sophisticated equipment which requires advanced training for operation and maintenance should be reserved for more specialized reference laboratories. College of Veterinary Sciences, Guwahati should be able to perform most of these functions.

a. Veterinary Hospital laboratory capabilities and equipment

- Hematocrit (Packed Cell Volume)
 - Hematocrit centrifuge
- Total serum solids
 - Hand-held refractometer
- Manual RBC and WBC counts
 - Hemacytometer and associated items
 - Slide staining jars, stains, etc.
- Fecal parasite exams
 - Standard laboratory centrifuge and glassware
 - Standard microscope
- Serum/Plasma separation
 - Standard laboratory centrifuge and glassware

b. Reference laboratory support

There should be arrangements for rapid transportation of diagnostic samples to Guwahati Veterinary College for following diagnostic procedures:

- Automated blood cell counting
- Clinical chemistry
- Bacterial culture and antibiotic susceptibility
- Viral isolation and identification
- Antibody/antigen serology
- Pathogen identification through ELISA or PCR
- Toxic agent analysis
- Parasite identification

c. Guwahati Zoo should actively and necessarily involve faculty members from various specialized disciplines viz. bacteriology, virology, parasitology, pathology, medicine, and surgery from College of Veterinary Sciences, Guwahati. Multidisciplinary involvement of faculty will enhance better diagnosis of mortality events, disease investigations, management of animal in distress and treatment of sick wild animals.

d. Pathology

- Post-mortem knives and sharpeners
 - Bone cutting equipment
 - Power skull cutting equipment
 - Range of specimen containers
- e. **Personnel support:** The veterinarian should be responsible for the overall health management program and will need assistance with diagnostic and veterinary procedures. Two assistants will be required, a Compounder (Veterinary Technician), and a Laboratory Technician.

2. EDUCATION AND TRAINING:

Training and Continuing Education to Veterinary Medical Officers

Current knowledge and skills of wildlife veterinarians may not be sufficient to provide proper health care to variety of wild animals housed in Guwahati Zoo. Provision for opportunities for continuing education on an annual basis should also be made. Following critical suggestions are made to enhance the skills of veterinary medical officers.

- i. Enhanced basic and clinical skills, including six months training in a US veterinary college/large zoo with program in zoological medicine.
- ii. Specialized knowledge and skills
 - a. Medicine
 - 3-6 month wildlife medicine internship in a large North American Zoo
 - a. Pathology
 - Workshop on wildlife pathology conducted with internationally accredited pathologist.
 - b. Other diagnostic procedures (e.g. imaging and lab analysis)
 - Short experiences with veterinary college faculty, who will provide capabilities and consultation when needed.

Veterinary Support Staff

A well trained ancillary veterinary staff is an essential component to an animal health program. To supplement any advanced training for Compounders and Laboratory Technicians that may be available in India, one week workshops by international presenters should be arranged. This kind of training could be coordinated with CZA with participation of personnel from other Parks and Zoos.

3. COMMUNICATION

- i. Procedures to maintain frequent and consistent communications among veterinary staff, animal care staff, and park administration should be established. These might consist of daily oral rounds and briefings, written summaries of activities and events, and longer term reviews of existing policies and procedures.

4. HUMAN HEALTH AND INTERACTION

Veterinary and animal care staff must be aware of the physical and biological dangers of working with captive wildlife. There should be staff training in these areas, as well as standard protocols for animal contact which aim to mitigate dangerous situations. Indian Veterinary Research Institute, Izatnagar/ Wildlife Institute of India may be requested to develop protocols in these areas.

Zoonotic disease prevention

- i. Knowledge of zoonotic diseases
Generally, zoonotic diseases are more easily prevented than treated; provided these are rapidly diagnosed/identified and prompt measures are taken for prevention and control. Nevertheless, many zoonotic diseases are not easily identified because the clinical signs observed are not highly specific or distinguishable from other clinical injections, or the animals are healthy carriers. Many zoonotic diseases have a wildlife reservoir, which very few veterinarians are trained to recognize, identify or even care for. It is important that veterinarians working with wildlife keep themselves updated on new and emerging zoonotic diseases.
- ii. Collaboration with other Institutions for diagnosis and identification of zoonoses
A major limitation in zoonotic disease recognition is the lack of training in zoonotic diseases, especially the exotic disease and pathogens. Division of Veterinary Public Health at Indian Veterinary Research Institute (IVRI), Izatnagar is an excellent resource and highly accomplished in research and training on zoonotic diseases. Guwahati Zoo may coordinate with them for their needs on formulation of protocols for investigation, diagnosis, treatment, control and prevention of carnivore zoonoses.
- iii. Evaluation of keepers health
A complete medical examination of all the keepers should be done every six month. The medical examination should include chest X-Ray and all other aspects to evaluate the health of keepers. This will minimize transfer of any zoonotic diseases such as tuberculosis to the carnivores.

iv. Human safety procedures

Keepers, Veterinary Medical Staff and other official entering into housing areas must wear protecting clothing. Rubber boots, gloves and aprons can minimize the risk of exposure for diseases transmitted by blood, feces or saliva.

Eating and drinking of any food material and beverages should be strictly prohibited in and around enclosure. Many of the zoonoses are spread by fecal-oral contamination. Hands should be properly washed after working with animals in enclosure followed by disinfection with 70% alcohol.

v. Sanitation procedures & disposal of contaminated articles

Clean animal holding and handling areas. Scrub tools, tables, reusable gloves and equipment with water and soap or detergent. Rinse the area with a disinfectant that contains bleach. A proper procedure should be followed for disposal of contaminated article and disposable accessories. Bio safety bags should be used for disposal of various contaminated article.

vi. Use of incinerator & bio safety bags

A pathological incinerator for animal carcasses for all burnable waste is highly recommended. Potentially infectious material should be properly collected in bio safety bags for incineration. Transport container for such materials must also be cleaned and decontaminated.

vii. Training & education of keepers

Zoo keepers lacked adequate training and education for the job assigned to them. For a zoo keeper, it is important that he/she is familiar with aspects of basic animal husbandry, hygiene, animal behaviour and nutrition.

It is suggested that the Central Zoo Authority may design and develop a 6-8 weeks training course for zoo keepers on the above aspects. Following skills may be necessary for zoo keepers:

- a. Animal husbandry for various taxa and hygiene procedures
- b. Behavioral enrichment of animals
- c. Veterinary procedures and protocols while assisting during veterinary treatment
- d. Animal record keeping
- e. Care of neonates during hand rearing
- f. Food preparation and storage
- g. Nutritional aspects of various taxa
- h. Enclosure design
- i. Zoonotic issues and safety
- j. Waste disposal

- 37b 19 10
- viii. Production of a guide in regional language providing basic knowledge on wildlife zoonoses.

It is important to develop curricular materials in local language on zoonotic diseases. Such material should contain information in a simple and understandable manner with diagrams and pictures etc. A zoo keeper training manual can also be produced in local language.

5. REFERENCE MATERIALS

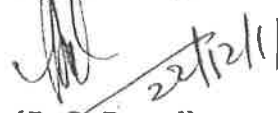
- i. A basic library of reference books and journals should be readily accessible by the veterinary staff. The American Association of Zoo Veterinarians has a bibliography that can be used to select the appropriate texts for this purpose.
- ii. A computer with high-speed internet access should be available in the veterinary hospital. Web resources and email contact with colleagues is an invaluable source of information.

A half yearly report regarding progress made in implementation of the aforesaid conditions should be submitted to the Central Zoo Authority.

Grant of recognition to Assam State Zoo, Guwahati beyond 31st December, 2015 as "a Large Category zoo" would be considered on the basis of compliance of the conditions stated above and general performance of the zoo.

The recognition to the Assam State Zoo, Guwahati shall be revoked by the Central Zoo Authority, at any point of time if the Zoo Operator is found not complying with the stipulated conditions.

Yours faithfully,



(B. S. Bonal)
Member Secretary

Copy to:-

1. The Chief Wildlife Warden, Government of Assam, Guwahati for favour of information and with a request that the stipulated conditions may be got implemented.
2. Mr. Vivek Goel, DPA, CZA.



(B. S. Bonal)
Member Secretary



केन्द्रीय चिड़ियाघर प्राधिकरण
Central Zoo Authority

(STATUTORY BODY UNDER THE MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

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Shahjahan Road, New Delhi - 110011
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BY REGISTERED POST

F. No. 19-62/92-CZA(27)(Vol.IV)(M)

DATE: 10.6.2008

To

The Divisional Forest Officer
Assam State Zoo Division,
Guwahati – 5 (Assam)

Sub:- Grant of renewal of recognition to Assam State Zoo, Guwahati beyond the period of 31.12.2007 under Section 38H of the Wild Life (Protection) Act, 1972 - Regarding.

Sir,

Reference is invited to your letter No. Z/CZA/Recognition of Zoo/08/1457 dated 23rd May, 2008 seeking grant of renewal of recognition to the Assam State Zoo, Guwahati beyond the period of 31.12.2007 under Section 38H of the Wild Life (Protection) Act, 1972.

The evaluation report of the Assam State Zoo, Guwahati as submitted by Dr. B. R. Sharma, Member Secretary, Central Zoo Authority was considered by the Technical Committee in its 47th Meeting held on 18.2.2008.

The Central Zoo Authority has decided to grant of recognition to Assam State Zoo, Guwahati as a large category Zoo under Section 38H of the Wild Life (Protection) Act, for a period up to 30.06.2011 subject to the compliance of the following directives under the Recognition of Zoo Rules, 1992:-

S. No.	Relevant Norm No.	Conditions	Time Period to comply the conditions
General			
1.	2	As the Zoo is housed in the neighbourhood of the many protected areas in the State of Assam and has to receive rescued animals	With immediate effect

Original
13/6/08

		from the field, the Zoo has to be in preparedness for housing such rescued animals. Many of these can be utilized for continuation of the conservation breeding of the identified species.	
2.	11A	The zoo has not prepared collection plan for animals to be housed considering the responsibility assigned to it as coordinating and participating zoo for many endangered endemic wild animal species from north-eastern region namely; Golden langur, Indian one horned rhinoceros, Serow, Grey peacock pheasant, Golden cat, Clouded leopard, Sun bear, Binturong, Stump tailed monkey, Thamin deer, Pigmyhog and Vultures (White backed and Himalayan griffion vultures). The Zoo Operator need to re-think and prepare a collection plan.	Six months
Animal enclosures – Design, Dimensions and other Essential Features			
3.	15	The Zoo Operator shall provide more warning signs for keeping the visitors' at the safe distance from the animals	Six months
4.	16	The small caged animal enclosures in the Zoo need to be dismantled and the land available can be better utilized for creation of open naturalistic enclosures for the targeted wild animal species. However, prior approval of the design should have got obtained from the Central Zoo Authority.	Twelve months
5.	16A	The Zoo Operator should restrict the visitors' circulation only to the one side of the primate island which have been recently created in the Zoological Park by providing appropriate screening.	Nine months
6.	17	The Zoo Operator shall endeavour to simulate the conditions of the natural habitat of the animals housed in each enclosure as closely as possible. Planting of appropriate species of trees for providing shade and shelter, which merge in the overall environment of the enclosures shall be provided.	Six months
Hygiene, Feeding and Upkeep			
7.	22	The Zoo Operator shall provide proper waste disposal system for both the solid and liquid wastes generated in the zoo.	Immediately

Animal Care, Health and Treatment

8.	29	The Zoo Operator shall arrange for medical checkup of the staff responsible for upkeep of animal atleast once in every six months to ensure that they do not have infections of such disease that effect of Zoo animals.	With immediate effect
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Veterinary Facilities

9.	31	The Zoo should have former mechanism with the Guwahati Veterinary College for providing specialized diagnostic facilities and services for better healthcare of animals in the Zoological Park.	Six months
10.	34	The Zoo Operator should conduct detailed post-mortem of the animals that dies in the Zoo by the veterinarian registered with State Veterinary Council or Veterinary Council of India and findings of such operation should be recorded for the period of atleast six years.	Immediately

Breeding of animals

11.	36	The Zoo shall keep in collection only such numbers and species for which appropriate housing facility exists. The Zoo Operator shall be responsible for ensuring that the number of animals of any species does not go beyond the carrying capacity of the enclosures available in the Zoo and housing standards are not compromised for keeping the excessive numbers.	With immediate effect
12.	39	The Zoo should create appropriate housing and infrastructure for the species identified under the Planned Conservation Breeding in the Zoological Park. The design of such enclosures should have got prior approval from the Central Zoo Authority.	Six months
13.	40	The Zoo Operator should take necessary steps to safeguard against uncontrolled growth in the population of Sambar and Spotted deer by adopting appropriate population control measures.	Immediately

Visitors' Facility

14.	48	The Zoo needs clearly demarcated visitors route with proper plan, footpaths identifying the visitors' sides of the enclosures.	Nine months
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Development and Planning			
15.	51	The Zoo should prepare a long-term Master plan for its development in the format circulated by the Central Zoo Authority during the year 2005 and the same is being published in the CZA's publication "Zoos in India-Legislation, Policy, Guidelines and Strategy". The copies of the said plan should be submitted to the Central Zoo Authority for its approval.	By 31 st March, 2009

A half yearly report regarding progress made in implementation of the aforesaid conditions should be submitted to the Central Zoo Authority.

Grant of recognition beyond 30.06.2011 to Assam State Zoo, Guwahati as a 'Large category Zoo' would be considered on the basis of compliance of the conditions stated above, general performance and physical evaluation of the zoo.

The recognition to the Assam State Zoo, Guwahati shall be revoked by the Central Zoo Authority, at any point of time if the Zoo Operator is found not complying with the stipulated conditions.

Yours faithfully,
sd/-
(B. R. Sharma)
Member Secretary

Copy to the Chief Wildlife Warden, Government of Assam, Guwahati for favour of information & necessary action.


(B. R. Sharma)
Member Secretary