



GOVERNMENT OF INDIA

भारत सरकार

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

**Central Zoo Authority**

केन्द्रीय चिड़ियाघर प्राधिकरण



F. No. 9-3/2006-CZA(NS)

To

The Curator,  
Indira Gandhi Zoological Park,  
Visakhapatnam – 530 040,  
Andhra Pradesh  
(Email: [igzpvizag@gmail.com](mailto:igzpvizag@gmail.com))

2904/2018

By Post/Email  
DATE: 12.04.2018

**Sub:- Status of research project titled "Reproductive biology, breeding behavior & enrichment need of the wild dog in captivity & observation on growth and cub development"- reg.**

- Ref:- (i) This office letter no. 9-3/2006-CZA(NS)/2742/2017 dated 07.06.2017.  
(ii) This office letter no. 9-3/2006-CZA(D)/2742/2016 dated 03.10.2016.  
(iii) This office letter no. 9-3/2006-CZA(NS)/1089/2016 dated 06.07.2016.  
(iv) This office letter no. 9-3/2006-CZA(NS)/538/2016 dated 01.04.2016.  
(v) This office letter no. 9-3/2006-CZA(NA)/521 dated 28.03.2012.  
(vi) This office letter no. 9-3/2006-CZA(M)/132 dated 24.01.2012.  
(vii) This office letter no. 9-3/2006-CZA(M) dated 02.05.2011.  
(viii) This office letter no. 9-3/2006-CZA(M) dated 21.05.2010.  
(ix) This office letter no. 9-3/2006-CZA(M) dated 06.04.2010  
(x) This office letter no. 9-3/2006-CZA(M) dated 24.07.2009  
(xi) This office letter no. 9-3/2006-CZA(M) dated 02.04.2009.  
(xii) This office letter no. 9-3/2006-CZA(M) dated 05.08.2008.  
(xiii) Your office letter no. 899/2005/TO dated 13.05.2008.  
(xiv) Your office letter no. 899/2005/TO dated 01.05.2008.  
(xv) This office letter no. 9-3/2006-CZA(M) dated 05.05.2008.  
(xvi) Your office letter no. 899/2005/To dated 22.04.2008.  
(xvii) Your office letter no. 899/2005/To dated 11.04.2008  
(xviii) This office letter no. 9-3/2006-CZA(N) dated 19.03.2008.  
(xix) Your office letter no. 899/2005,D, dated 16.03.2007.

Sir,

The Central Zoo Authority had signed an MoU with Indira Gandhi Zoological Park, Visakhapatnam for the above mentioned project to be completed within 12 months from 29.03.2006 with a grant of Rs. 2.00 lakhs. The project was further extended for a period of one year with financial assistance of Rs. 1.64 lakhs. As per the MoU, the grants of Rs. 1.00 lakh, Rs. 0.60 lakh and Rs. 0.40 lakhs were released to the Indira Gandhi Zoological Park, Visakhapatnam on 11.01.2007, 16.07.2007 and 19.05.2008 respectively.

2. The Indira Gandhi Zoological Park, Visakhapatnam submitted the first progress report vide reference (xix) above. The Central Zoo Authority vide reference (xviii) above mentioned that the project duration is one year and must have completed within prescribed limit. Further, requested to submit the final report as per the terms and conditions of the MoU.

3 In response, the Indira Gandhi Zoological Park, Visakhapatnam submitted the report of the project vide reference (xvii) above. Further, the Indira Gandhi Zoological Park, Visakhapatnam submitted a request to extend the research project for one more year vide reference (xvi) above. On perusal of the report, it is observed that the work done under the project includes only the part of behavior of wild dog in the captivity and rest of the aspects were not included. The basic idea behind awarding the project was to prepare Conservation Breeding Management Plan of Wild dog in captivity for Indian Zoos and the same was also not included. The Central Zoo Authority vide reference (xv) above requested Indira Gandhi Zoological Park, Visakhapatnam to first prepare the Conservation Breeding Management Plan of wild dog in captivity and afterwards the request for extension of the project work duration may be considered.

4 In response, the Indira Gandhi Zoological Park, Visakhapatnam submitted the report having "Recommendations to other zoos and Enrichment activities for dholes" and again submitted a request to extend the duration of research project by one year with additional financial assistance of Rs. 1.64 lakhs vide reference (xiv) & (xiii) above.

5. The Central Zoo Authority vide reference (xii) above communicated the approval of extension of project for one year with additional financial assistance of Rs. 1.64. The grant Rs. 0.82 lakhs (50% of the additional grant) was released to the Indira Gandhi Zoological Park, Visakhapatnam on 15.12.2008. It was also requested that the Indira Gandhi Zoological Park, Visakhapatnam shall prepare Conservation Breeding Management Plan for captive Wild dog which shall cover study on enclosure type & size, use of enclosure, tranquilization of Wild dogs, drug composition, veterinary care, dietary, activity pattern, reproductive behavior, parental care, enrichment, etc. on However, no response has been received from your end.

6. The Central Zoo Authority repeatedly requested the Indira Gandhi Zoological Park, Visakhapatnam to submit progress report of the project vide reference (xi), (x), (viii), (vii), (vi) and (v) above. The Central Zoo Authority vide reference (ix) above also requested to depute the principle investigator of the project to present the findings of the project in the office of the Central Zoo Authority. The Central Zoo Authority vide references (iv) & (iii) above requested the Indira Gandhi Zoological Park, Visakhapatnam to submit the detailed final project for approval or surrender the earlier grant released towards the project with interest accrued to this effect. However, no response has been received from your end.

7. The status of the Central Zoo Authority sponsored research projects was placed before the Technical Committee, CZA in its 79<sup>th</sup> meeting held on 24<sup>th</sup> August, 2016. The Committee decided that the concerned authority should submit the pre-final draft report of the project for review and approval or refund the amount released towards project. The same was communicated to the Indira Gandhi Zoological Park, Visakhapatnam vide reference (ii) above. Further, the Central Zoo Authority vide reference (i) above provided one final opportunity to submit a pre-final draft report within a

period of one month for approval or surrender the earlier grant released towards the project with interest accrued thereon. However, no pre-final report has been submitted from your end for approval.

8. The Indira Gandhi Zoological Park, Visakhapatnam vide reference (xvii) above submitted a progress report of the project. The report has been examined as per MoU at the office of Central Zoo Authority and following observations on the report alongwith the status of the project was placed before the Technical Committee of the Central Zoo Authority in its 85<sup>th</sup> Meeting held on 23.03.2018 for deliberation and decision:

SI.	Objectives as per MoU Article 1	Work conducted	Remarks
1	Clause (i) The IGZP shall study the reproductive biology, breeding behavior and enrichment needs of the wild dogs in captivity and observation on growth and cub development by way of carrying out literature survey & daily observations, behavioral sampling on the wild dogs, environmental enrichment of the wild dogs enclosure and investigate social dominance and aggressions and faecal gluco-corticoids level in wild dogs and its effect on reproductive behavior.	It seems from the report that the study on reproductive biology, breeding behavior and enrichment needs of the wild dogs in captivity has not been carried out during the study.  However, the observation on growth and cub development & daily observations, behavioral sampling on the wild dogs has been included in the report.  Environmental enrichment of the wild dogs enclosure and observation of faecal gluco-corticoids level in wild dogs and its effect on reproductive behavior is also not been done during the study.	Not carried out as per MoU.
2	Clause (ii) The IGZP shall also take inputs from other field biologists, NGO's and NGL's and involving other zoo officials who has been housing the wild dogs and have conducted studies on wild dog.	It seems from the report that the inputs from other field biologists, NGO's and NGL's and involvement of other zoo officials who has been housing the wild dogs and have conducted studies on wild dog has not been taken.	Not carried out as per MoU
3	Clause (iii) The IGZP shall provide appropriate and suitable acknowledgment of the participation and cooperation provided by the Central Zoo Authority, and other involved individuals and organizations.	The report does not include acknowledgment section acknowledging the participation and cooperation provided by the Central Zoo Authority, and other involved individuals and organizations.	Not carried out as per MoU
4	Clause (iv) No invasive method should be used while conducting the research study.	Focal animal scan sampling used for studying the behavior of the wild dog.	Carried out

The Research Proposal received from the Indira Gandhi Zoological Park, Vishakhapatnam, Andhra Pradesh for the study has mentioned following objectives. The CZA approved grant based on this proposal. However, it is observed that the same has not been followed. The details in this regard are mentioned below:

Sl.	Objectives as per proposal	Work conducted	Remarks
1.	To observe and document start and length of oestrus periods, duration, intervals and seasonal fluctuation and influence of ecological aspects on oestrus in wild dogs.	The report does not mention anything about the start and length of oestrus periods, duration, intervals and seasonal fluctuation and influence of ecological aspects on oestrus in wild dogs.	Not carried out
2.	Behavioural observation on mating behaviour, which includes natural selection/choice mating, courtship, mating duration, coition and role of other members in pack, percentage of success, mating pair preference in enclosure etc.	<p>The report does not mention anything about the mating behaviour, which includes natural selection/choice mating, courtship, mating duration, coition and role of other members in pack, percentage of success, mating pair preference in enclosure etc.</p> <p>However, the study on the social interactions among various members of the pack has been done using focal animal sampling.</p> <p>The photographic documentation related to the behaviour of the wild dog has been included in the report and ethograms having 40 different social behaviour in captive dholes has also been prepared during the study.</p> <p>The report mentioned that the study on the enclosure utilization by captive dholes will be conducted in future.</p>	Not carried out as per MoU.
3.	To create an optimal environment in enclosures to allow successful breeding of wild dog and response to enrichment offered and influence of enrichment on breeding.	The report mentioned that the study on environmental enrichment for dholes in captivity will be carried out in the future.	Not carried out
4.	Observation on growth and early cub development includes role of mother, father and other pack members in kitten, Development preference of diet and quantities consumed and its variations	The report includes the data on age and weights of pups, weaning dates, food and nutrition for adults and pups. Adult Pup interaction and aggression behaviour was also studied.	Not carried out as per MoU.

9 **Other general observations/comments:**

- i. The report should be prepared and written in a more scientific manner.
- ii. The Introduction section should include the information related to the biology, breeding, behavior etc of the wild dog.

- iii. The report should also include Preface, Acknowledgment, Recommendation and Reference Chapters.
- iv. It has been observed that at many places references mentioned in the text has not been quoted in the reference chapter. It should be included.
- v. Numbering of photographs, figures and tables used in the report should also be done.

The Technical Committee, CZA after noting the observations of the Central Zoo Authority on the project decided not to accept the project report as the work has not been done as per the MoU and also decided to recover the grants released towards the project with penal interest of 10% per annum as per provision under Rule no. 258(1) of GFR, 2017 from Indira Gandhi Zoological Park, Vishakhapatnam, Andhra Pradesh.

Keeping in view of the above, you are requested to surrender the grant released alongwith penal interest at the rate of 10% per annum against the grant of Rs. 2.82 lakhs released towards the project to this authority. The amount may be deposit/transferred to the Central Zoo Authority through RTGS as per the details below:

1	Name of Beneficiary	Member Secretary, Central Zoo Authority
2	Name of Bank	SBI, Pandit Deendayal Antyodaya Bhawan, CGO Complex, New Delhi 110 003
3	Account no.	35743814303
4	Branch Code	07837
5	IFSC Code	SBIN0007837
6	MICR	110002131
7	BSR Code	0007837
8	Shift Code	SBININ BB 382

As decided by the Technical committee of the Central Zoo Authority the above mentioned project stands closed

Yours Sincerely,



(Dr. D.N. Singh)  
Member Secretary

**Copy for information and necessary action to:**

The Chief Wildlife Warden, Government of Andhra Pradesh, Aranya Bhawan, Saifabad, Hyderabad - 500 004, Andhra Pradesh.

