

Revised Proposal Submitted from IVRI to CZA

59

Title: Evolving standard protocol on wild animal health for Indian Zoo

Project Team:

Project leaders and peers:

1. Director, Indian Veterinary Research Institute, Izatnagar- 243 122 (U.P.)
2. Joint Director (Research), IVRI Izatnagar- 243 122 (U.P.)

Principal Investigator(PI) & Co-ordinator:

Dr D. Swarup, Head, Division of Medicine, IVRI Izatnagar- 243 122 (U.P.)

Co-PIs:

Dr. G. R. Singh, Head, Division of Surgery, IVRI Izatnagar- 243122 (U.P.)

Dr. (Mrs) Mohini Saini, Sr.Scientist, CWL, IVRI. Izatnagar- 243122 (U.P.)

Project collaborators:

Dr A.K. Sharma, Pr. Scientist, Division of Pathology, IVRI Izatnagar- 243122

Dr R.C. Patra, Sr. Scientist, Division of Medicine, IVRI Izatnagar- 243 122

Dr Asit Das, Scientist (S.S.), Centre for Wildlife, IVRI Izatnagar- 243 122

In addition to above core-group of scientists association of following scientists/professionals involved in wild animal health management would be invited as and when needed:

Dr M.C. John, Member, Centre Zoo Authority, New Delhi.

Dr L.N. Acharjyo, Member Technical Committee, CZA, New Delhi.

Dr P.K. Mallik, Head, Wildlife Health, WII, Dehradun

Dr A.B. Srivastava, Prof. Pathology & I/C Wildlife Health, JNK VV Jabalpur

Dr M.G. Jayathangaraj, Coordinator, RC WL, TANUVAS, Chennai

Dr Paneer Selvam, Senior Veterinary Officer, NZP, New Delhi

Dr U. Shukla, Senior Veterinary Officer, NZP, Lucknow

Duration of the project: Three years from the date of start

Background

India is one amongst the bio-diversity rich countries of the world, standing 6th in the list of 12 mega-biodiversity countries. It is estimated that our country possesses over 81,000 known species of animals, representing over 6.3% of total global animal species. However, it is reported that nearly 33% of these species are facing extinction and once lost we lose them forever. The zoo movement, which received an impetus in India after independence with the constitution of Indian Board of Wildlife, was an important attempt for conservation of wildlife and zoos were established in the country with the basic objective to act as repositories of species threatened with extinction, to evolve and carry out breeding programme for the propagation of rare endangered species, to act as a place for dissemination of biological information to educate visitors and to conduct research on wild behavior, reproduction, nutrition and disease of wild animals. In this perspective, wild animal health management plays a vital role. However, there are certain issues related to wild animal health management that need immediate attention, especially in zoo animal medicine in India.

The zoological medicine is comparatively a new branch of veterinary medicine dealing with the health problems of all species of animal not classified as companion animals or livestock. It is a more complex subject than medicine of domestic animals. Until recently, the zoo animal medicine was primarily concerned with specific disease conditions and emphasis was on cure, not prevention, on individual rather than population. Moreover, no formal training was given to veterinarians due to lack of formal course on wildlife disease management in veterinary curriculum in the past and self taught veterinarians or those attending specialized Post Graduate program were looking after the health of wild animals in zoo. However, during the past 3 decades, interest in the clinical medical problems of wild animals has changed significantly due to change in attitude of professionals. Now, courses dealing with wildlife management and health care are being offered in veterinary colleges under VCI regulations and more and more veterinarians are becoming increasingly interested in management of disease problems of both free and captive wild animals. There

are, however, still certain issues which need attention in zoo animal health management in Indian context. There is lack of information on standard therapeutic and prophylactic medication schedule including deworming and immunoprophylaxis programs that could be adopted in different zoos in India. Also zoo veterinarians often face difficulty in getting a reference to make appropriate decision in a emergency health problems. 61

Aims and objectives

Considering these facts Central Zoo Authority has decided to develop basic standards and protocols on wild animal health and this proposal is in line with this concept and would be focused to develop standard guidelines and protocol for:

1. Diagnosis of diseases affecting the wild animals in zoos
2. Carrying out vaccination of different species of wild animals against diseases, their type, dosages and frequency.
3. Prevention of zoonotic diseases affecting wild animals and the personnel handling the wild animals.
4. Isolation/quarantine of sick and newly arrived animals.
5. Chemical and manual restraining of wild animals in captivity including prescribing of drugs and dosage for chemical restraining.
6. Checking the parasitic load in wild animals (ecto and endo parasites) and prescribed the methods for containing the prevalence of the parasites including deworming schedules and the type of drug and dosages.
7. Disinfection of animal enclosures and the zoo surroundings including the type of disinfectant to be used for these purposes.
8. Overall sanitation of the zoo campus including hygienic disposal off all wastes generated in the zoo and the dead carcass of the animals.
9. Providing first aid and emergency treatment to critically ill and injured animals

Activity profile:

- Collection of information from zoos & RCC***
 - Disease prevalence
 - Current data
 - Retrospective data for past 10 yr
 - Prophylactic methods adopted including
 - Vaccination
 - Deworming
 - Hygiene measures
 - Therapeutic medication
 - Evolving standard protocol
 - Feeding and nutrition schedule
 - Disease diagnostic methods
 - Treatment protocol and emergency measures
 - Immunization schedule and factors influencing immunity
 - Deworming strategies
 - Zoonosis
 - Control of OIA listed diseases
 - Evolving standard protocol
- Perusal of available literature on***
 - Different aspects of disease management adopted globally
 - Disease diagnostic methods
 - Treatment protocol and emergency measures
 - Immunization schedule and factors influencing immunity
 - Deworming strategies adopted
 - Zoonotic diseases in wildlife
 - Control of OIA listed diseases
- Preparation and publication of standard protocol***

Budget requirements

Pay/Honorarium:

- SRF: (total 2 post) @ Rs 11,500/-per month
(fixed)+ HRA (total Rs13,225/- per month) : Rs 9.50lakh
- Honorarium to invited experts
and holding meetings : Rs 1.00 lakh

Travailing allowance

@ 1.5 lakh per annum : Rs 4.50 lakh

Computer and lap- top with accessories : Rs 1.00 lakh

**Stationery, publication
and other miscellaneous expenses** : Rs 3.50 lakh

Total : Rs 19.50 lakh

(Rupees nineteen lakh and fifty thousand only)

Terms and conditions (proposed)

1. The project will be developed as a collaborative programme following guidelines issued by ICAR
2. It will be totally funded by CZA
3. The Indian veterinary research Institute would provide scientific resources and other infrastructure for effective implementation of the programme
4. PI/ Coordinator of the Project would submit the annual progress report to the IVRI and through Director IVRI and Joint Director (Research) IVRI the leader and peers of the project
5. The MOU would be developed after receiving acceptance from CZA for funding the project