

National Referral Centre for Wildlife Diseases Monitoring and Prevention

BACKGROUND

The COVID-19 pandemic brought about pause and forced us all to ponder about species loss and natural habitat destruction that are essentially considered the root of the problem. Zoonotic diseases make up 60% of emerging infectious disease events worldwide. Of the 335 emerging disease events in humans, nearly 72% originated in wildlife. India is not new to zoonotic diseases and there have been localized yet grave instances of death due to such diseases (e.g Kyasanur Forest Disease, Nipah virus outbreak). This leads into our ability to monitor the emerging diseases efficiently in the wild animal populations and further continually monitor the health of captive wild animals in zoological institutions across the country.

Wildlife landscapes are a mosaic of niches and habitats supporting an enormous variety of vertebrate and invertebrate species, and each species or taxon supports an even more impressive array of macro- and micro-parasites and organisms. Infectious pathogens that originate in wild animals have become increasingly important throughout the world in recent decades, as they have had substantial impacts on human health, agricultural production, wildlife-based economies and wildlife conservation. Monitoring wildlife diseases and understanding epidemiology of the diseases and their impacts is without doubt pertinent

Current Initiative

Currently with nearly 981 protected areas and more than 152 zoos operational in the country, the burden on any one center is overwhelming. India needs a scientific, forward looking wildlife disease management system and a nodal entity to coordinate it. Robust disease surveillance plans that can assess the spread of diseases within and across animal and human compartments and an ability to proactively contain them is necessary. This is only possible through an establishment which can coordinate and execute the mandate to put in place preventive measures, predict events in advance and effectively diagnose and contain potential outbreaks to prevent a full blown national disasters. With these considerations in mind, Ministry of Environment, Forests and Climate Change envisions to create a center that co-ordinate wildlife health management and all aspects of wildlife disease control with national and international entities in the form of National Referral Center for Wildlife Disease Management & Prevention (NRC-WLDMP).

The Central Zoo Authority was identified as a nodal institute and a proposal was submitted to CAMPA in September 2020. The Ad-Hoc CAMPA vide its letter F.NO. NA-13/2/2020-NA dated 5.03.2021 has conveyed the approval to the CZA proposal for setting up the National Referral Centre for Wildlife Disease Monitoring and Prevention.

To deliberate on this proposal and to finalize a concrete plan to realize this ambitious endeavour a committee comprising of the following members was set up:

- 1 Shri R.N. Mehrotra. IFS (Retd.)
- 2 Shri R.K. Singh. IFS (Retd)
- 3 Dr P.K. Mallik (Scientist G. Retd.) Wildlife Institute of India

- 4 Dr Sindura Ganapathi. o/o Principal Scientific Advisor, GOI
- 5 Dr Karthikeyan Vasudevan Sr. Principal Scientist CCMB/ LaCONES
- 6 Dr S.S. Mujumdar. National Institute of Animal Biotechnology
- 7 Shri Upamanyu Basu,, Jt Sec., Department Of Animal Husbandry And Dairying,
- 8 Dr Parag Nigam (Representative) -Scientist F and Head, Dept of Wildlife Health management, Wildlife Institute of India
- 9 Dr Abhijit Pawde, Senior Principal Scientist, Centre for Wildlife, Indian Veterinary Research Institute
10. Dr Sonali Ghosh, IFS, CCF (RE&WP), Assam Forest Department, Assam,
11. Dr Praveen Mallik, Commissioner, Animal Husbandry, DAHD
- 10 Deputy Inspector General of Forest-CZA (Member Convenor)

The committee deliberated on the proposal that was put forth by the CZA in 4 virtual meetings and streamlined the vision and mission for the center thus determining the way forward.

The following committee members attended the National Conference for Zoo Directors and Veterinarians held at Kevadia, Gujarat from October 10-11, 2021.

1. Shri R.N. Mehrotra. IFS (Retd.)
2. Shri R.K. Singh. IFS (Retd)
3. Dr Sindura Ganapathi. o/o Principal Scientific Advisor, GOI
4. Dr Karthikeyan Vasudevan Sr. Principal Scientist CCMB-LaCONES
5. Mr Upamayu Basu- Jt Sec., Department Of Animal Husbandry And Dairying
6. Dr Abhijit Pawde, Principal Scientist, Indian Veterinary Research Institute, Bareilly
7. Dr Sonali Ghosh, IFS, CCF(R&T), Assam Forest Department
8. Dr Praveen Mallik, Commissioner, Animal Husbandry, DAHD

The committee members met several times over the course of the 2 days and discussed the formation of a blueprint document of the centre. Based on the deliberations of the committee and the meetings with the stakeholders (Zoo Directors and Veterinarians who attended the National Conference held at Kevadia, Gujarat in October 2021) the following recommendations emerged:

Immediate effort should be towards finalisation of a blueprint document and outline the National Referral Center (NRC) with consideration of fulfilling the following functions;

1. To serve as a specialized apex institute that encompasses all aspects of 'wildlife health management ' with regional centres.
2. Areas that this institute can cover could include:
 - a. Disease management (including preventive measures, disease diagnostics and treatment approaches, sample collection and dispatch).
 - b. Disease surveillance including but not limited to zoonotic diseases
 - c. Research
 - d. Telemedicine
 - e. Teaching, training and serve as a referral body that can link up with regional/local centres to provide expertise, and support to upgrade them
 - f. Information and data management for the sector

3. National and International collaboration as a strong component to provide exchange of knowledge and expertise
4. Strong linkage with zoos and wildlife areas of the country in order to serve as a dynamic link to facilitate exchange of knowledge, materials and translation of solutions.

Based on these deliberations the blueprint document was prepared and finalized. (Annexure 2). Following the blueprint, it is envisaged to outline the budget and functioning in details and it is thus proposed to identify a consultant to put together a DPR for the NRC-WLDMP Project.