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To,

P Anusha (IFS)
The Executive Director,
Sri Chamarajendra Zoological Gardens (Mysore Zoo), Zoo Main Road,
Mysuru, Karnataka - 570010

Subject: Urgent Concern Regarding Rodent Infestation and "One Health" Risks at Mysore Zoo

Dear Ms. P Anusha (IFS),

I am writing to you as a medical doctor and public health professional from Mysore, following several visits to the Mysore Zoo over the past year. While the zoo remains a premier heritage institution and a pride of Karnataka, I am compelled to bring to your attention a critical biosafety and animal welfare issue: a pervasive and aggressive rat infestation within a significant number of animal enclosures.

The One Health Context

The "One Health" approach recognizes that the health of people is closely connected to the health of animals and our shared environment. In a zoo setting, where species from diverse global geographical regions—who would never naturally meet are housed in proximity, the risk of "spillover" events is exceptionally high.

- During my visits, I observed that in over half of the enclosures, a massive subterranean rodent ecosystem has developed. Within a few minutes of watching any animal, rats were seen raiding the primary food sources provided for the zoo animals, acting aggressively toward the captive species, and retreating into extensive tunnel networks. These rodents act as "biological bridges," capable of carrying pathogens (such as Leptospirosis, Hantavirus, or Salmonellosis) across different enclosures and potentially to human visitors and staff. According to Arpin et. Al. in *"Interdisciplinary approaches in rodent-borne disease research within an Ecohealth framework."* *Frontiers in Veterinary Science*.
- **Relevance:** This study highlights how rodents in high-interaction areas (like zoos) act as "biological bridges" between the environment, animals, and humans. It advocates for moving away from "siloes" management toward an integrated surveillance system—exactly what the National One Health Mission calls for.

This creates a high-risk environment for the mutation and transmission of infections, the exact recipe for a One Health disaster.

Furthermore, international research (e.g., Lincoln Park Zoo's One Health studies) confirms that these rodents are significant reservoirs for zoonotic diseases. Neglecting this issue contradicts the National One Health Mission's goals of preventing spillover events at the human-animal interface. Recent proceedings from the National One Health Mission emphasize that rodents are 'biological bridges' for disease; furthermore, the Central Zoo Authority has cautioned against standard poisoning due to the risk of secondary toxicity to captive carnivores.

Zoo Master Plan

I have reviewed the Master Plan of Sri Chamarajendra Zoological Gardens, which emphasizes your vision of providing "naturalistic enclosures" and "exemplary animal welfare", but does not document/recognise this rodent infestation. The Master Plan's goal to "ensure better management of zoo through animal science" is currently undermined by these pests. The rodents are effectively stealing the nutritional investments made in the animals "Daily Feed Schedule" (Section 13 of your annual reports) and creating a stressful environment that contradicts the plan's focus on "animal comfort and wellbeing."

Policy and Legal Mandates for Action

This issue is not only about aesthetics; it touches upon significant legal and national policy commitments:

- 1. National One Health Mission:** The Government of India, steered by the Office of the Principal Scientific Adviser and the Ministry of Environment, Forest and Climate Change (MoEFCC), recently launched the **National One Health Mission**. This mission explicitly prioritizes integrated disease surveillance across zoos to prevent zoonotic outbreaks.
- 2. Recognition of Zoo Rules, 2009:** Under **Rule 10 (Schedule 1 & 5)**, zoos are legally mandated to maintain high standards of hygiene, sanitation, and "upkeep and healthcare." Specifically, the Central Zoo Authority (CZA) guidelines require zoos to ensure a naturalistic environment free from pollution and pests that cause stress or health hazards to the animals.
- 3. State Commitments:** Karnataka was the first state to launch a **One Health Pilot Project**, signaling a clear mandate from the Government of Karnataka to address health challenges at the human-animal-wildlife interface.
- 4. International Standards:** As a world-class facility, the zoo's management is expected to align with the World Association of Zoos and Aquariums (WAZA) standards, which emphasize biosecurity and the mitigation of invasive species within exhibits.
- 5. The Optics of a Heritage Space:** Mysore Zoo is a flagship of Karnataka's heritage. The sight of exotic and endangered animals struggling to defend their food from large colonies of rats is poor optics for the city and the state. It detracts from the educational and conservationist message the zoo seeks to impart.

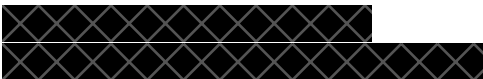
Proposed Way Forward

I urge the zoo administration to undertake an immediate assessment of this infestation. This should move beyond traditional poisoning (which risks secondary poisoning of zoo animals) to an Ecosystem-based **Integrated Pest Management (IPM)** approach, as hinted at in the "Sustainable Management Practices" of your Master Plan (See reference documents by UN FAO in this regard).

1. Use caution in applying traditional poisoning (rodenticides) as these may be insufficient and dangerous in zoos due to the risk of secondary poisoning - where a zoo predator (owl, small cat, or raptor) consumes a poisoned rat and dies.
2. Convene a workshop followed by an audit of rodent infestation problem in the zoo. Create a plan using ecosystem-based Integrated Pest Management (IPM) approach, focusing on:
 - a. Structural Exclusion: "Rat-proofing" feeding cells and sealing subterranean access points.
 - b. Habitat Modification: Removing piles of debris or "hiding spots" near enclosures.
3. Surveillance: Regular monitoring of rodent-borne pathogen loads in the soil and water and in the animals through a zoo-based OneHealth disease surveillance system in line with the National OneHealth Mission goals

Yours sincerely,

Dr. Prashanth N S



Copy to:

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2. Dr. V Clement Ben, IFS, Member Secretary, Central Zoo Authority, B-1 Wing, 6th Floor, Pt. Deendayal Antyodaya Bhawan, CGO Complex, Lodhi Road, New Delhi – 110003,
3. Shri. Kumar Pushkar, IFS, The Principal Chief Conservator of Forests (Wildlife), 2nd Floor, Aranya Bhavan, 18th cross, Malleshwaram, Bengaluru-560003