# WILDLIFE HAZARD MANAGEMENT-AN AERODROME PERSPECTIVE

Mr. Ramana Murthy B & Dr. Riju P Wildlife Hazard Management Team GMR Hyderabad International Airport LTD.



### **DGCA References**

Order No. AV-15023/1/2009-AS (NBCC) dated 02.12.2013 b. Revised order dated 20.04.2017

Ministry of Home Affairs Letter No. 53/1/80- Public dated 07.05.1980

Rule 91, Aircraft Rules 1937

Recommendation of NBCC Recommendation of NBCC Air Safety Circular 02 of 2011

Aerodrome Circular 06 of 2017

### **Ref:- DGCA India-National Aviation Safety Plan 2018-2022**

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### **Safety Measures**

National Bird Control Committee

Airfield Environment Management Committees

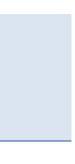
Primary legislation (Aircraft Rules) preventing dumping of garbage and de-skinning of animals within a 10 km radius around airport

Education and outreach programmes Extensive audits and inspections Comprehensive data collection activities

Guidance on Wildlife Hazard Management

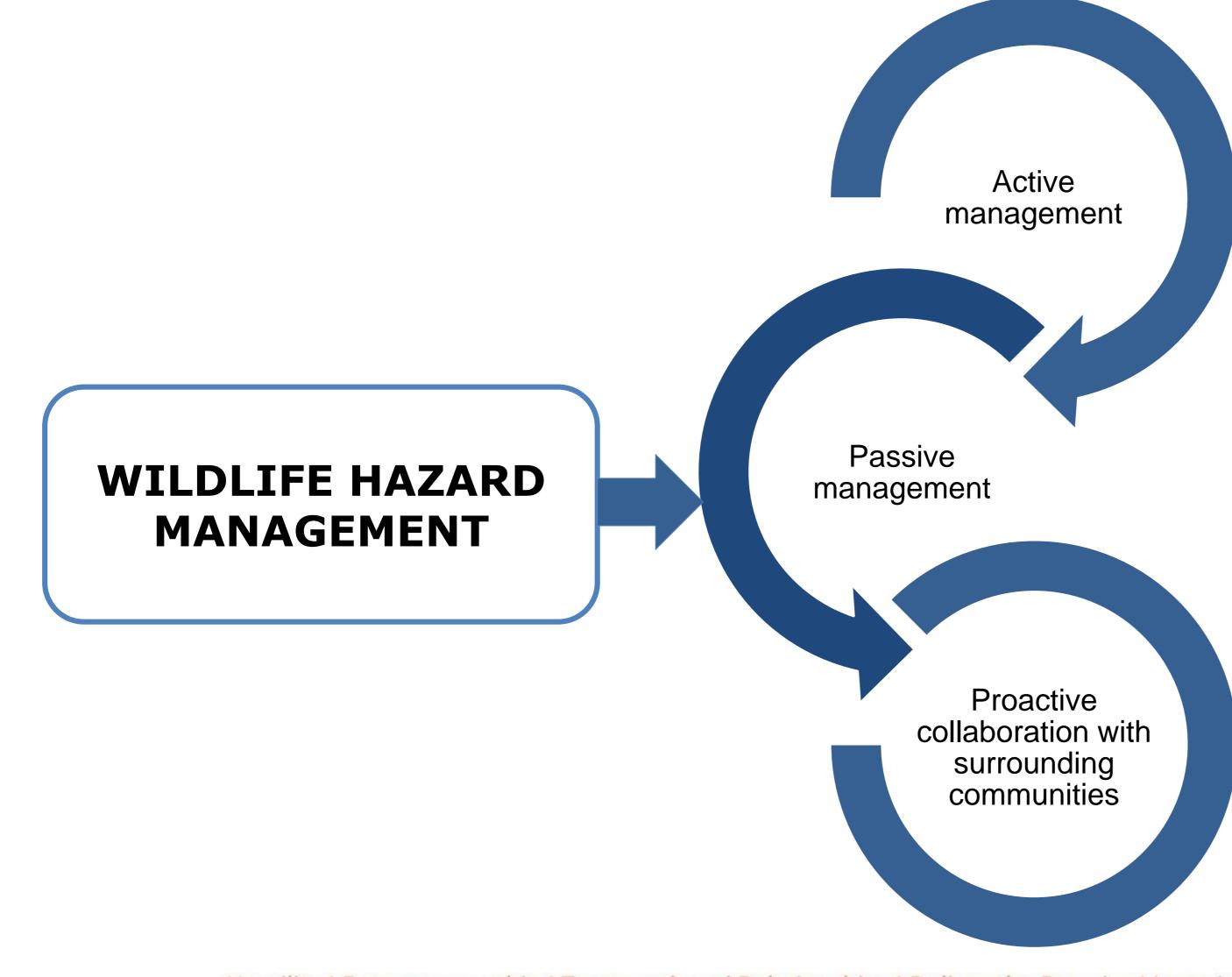








# Comprehensive Mitigation Strategies Adopted at HYD Airport GMR



- Crackers- Salute-2, Salute-3, Cotton bombs
- Zon gun/Agri-cannon
- Bird scaring unit
- Bird patrolling
- Dog barking sound
- Pigeon proof net & spike
- Whistling, Flashing of Umbrella, clapping board
- Grass cutting
- **Vegetation Removal**
- Management of water logging areas
- Spraying insecticide and pest control
- Removal of termite mound and ant colonies
- Awareness session for schools and colleges
- Distributing Leaflets and displaying awareness boards.
- Monthly inspection and Timely conduction of AEMC along with line departments









# Forest/vegetation removal and uprooting

### Rajiv Gandhi International Airport

# ZONE 5













### Grass cutting

Collection of cut grass

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### Passive management





### Lifting of grass





# Cut and collect













### Spraying bird deterrent

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### Pest Control





### Spraying Insecticide



# Trapping and Translocation of wildlife





### Wild cat

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### Monkey

### Pigeon





# Scientific approach for effective wildlife control at RGIA

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### 1. Drain maintenance 2. Termite mound treating with chemical 3. Closing burrows 4. Packing the parts of AOG

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# Regular checking and removal of bird nests from critical locations GMR







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# Collecting wild mushroom that appear like egg and attracting Raptors GMR



### Mushroom in the field

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Collection in progress

### Collected mushroom





# Caterpillar on runway



### Caterpillar on runway

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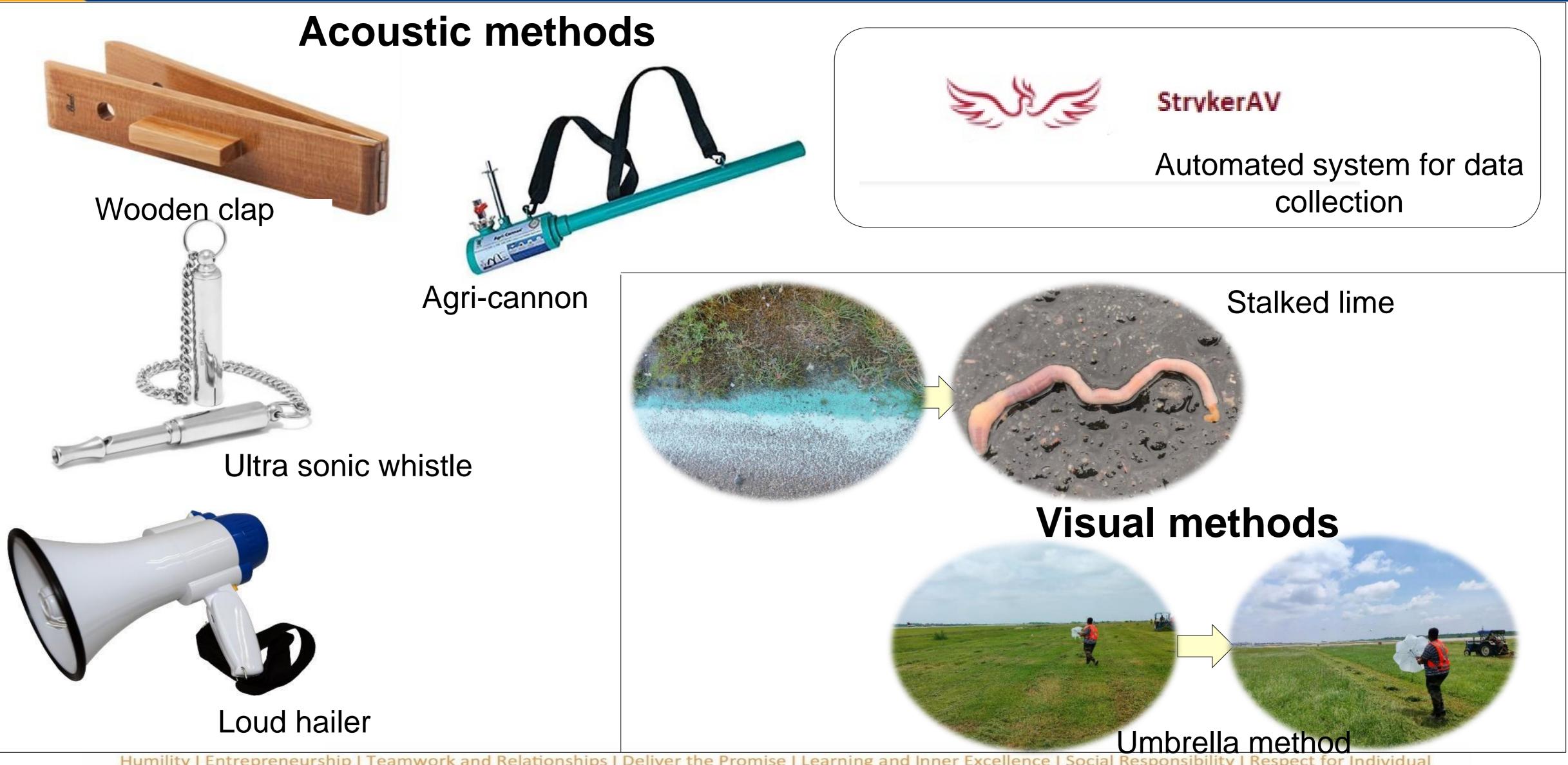
Collection in progress

### Collected and removed





# New additions to the BASHM tool box



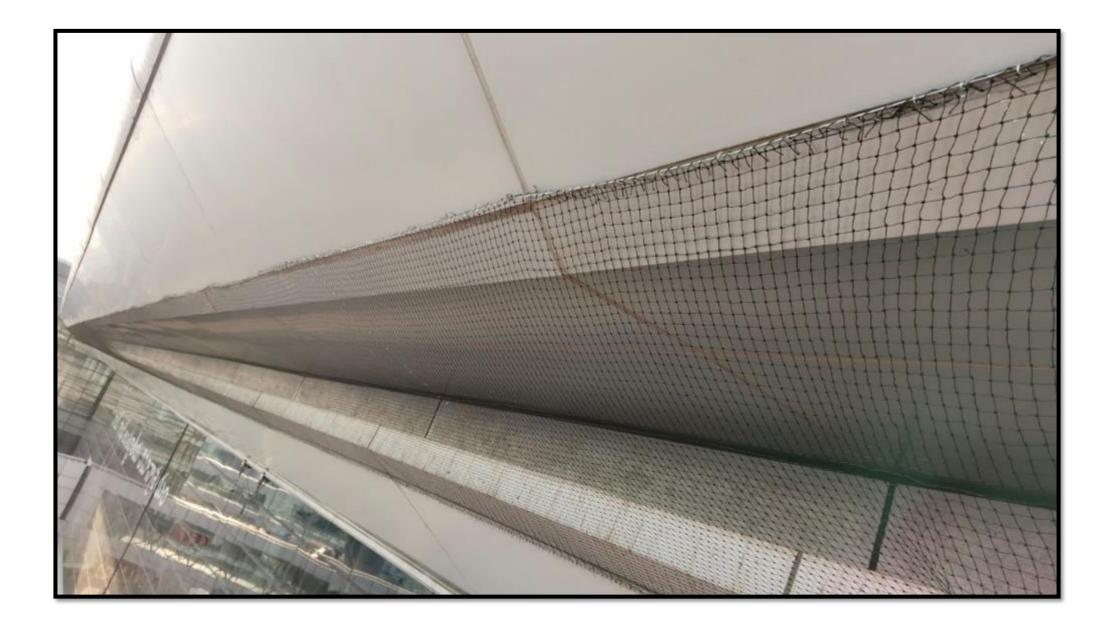






# Pigeon proofing

### Bird Spike- 5,544 ft./5,544 ft. Bird Netting-58,500Sq.ft./58,500Sq.ft.



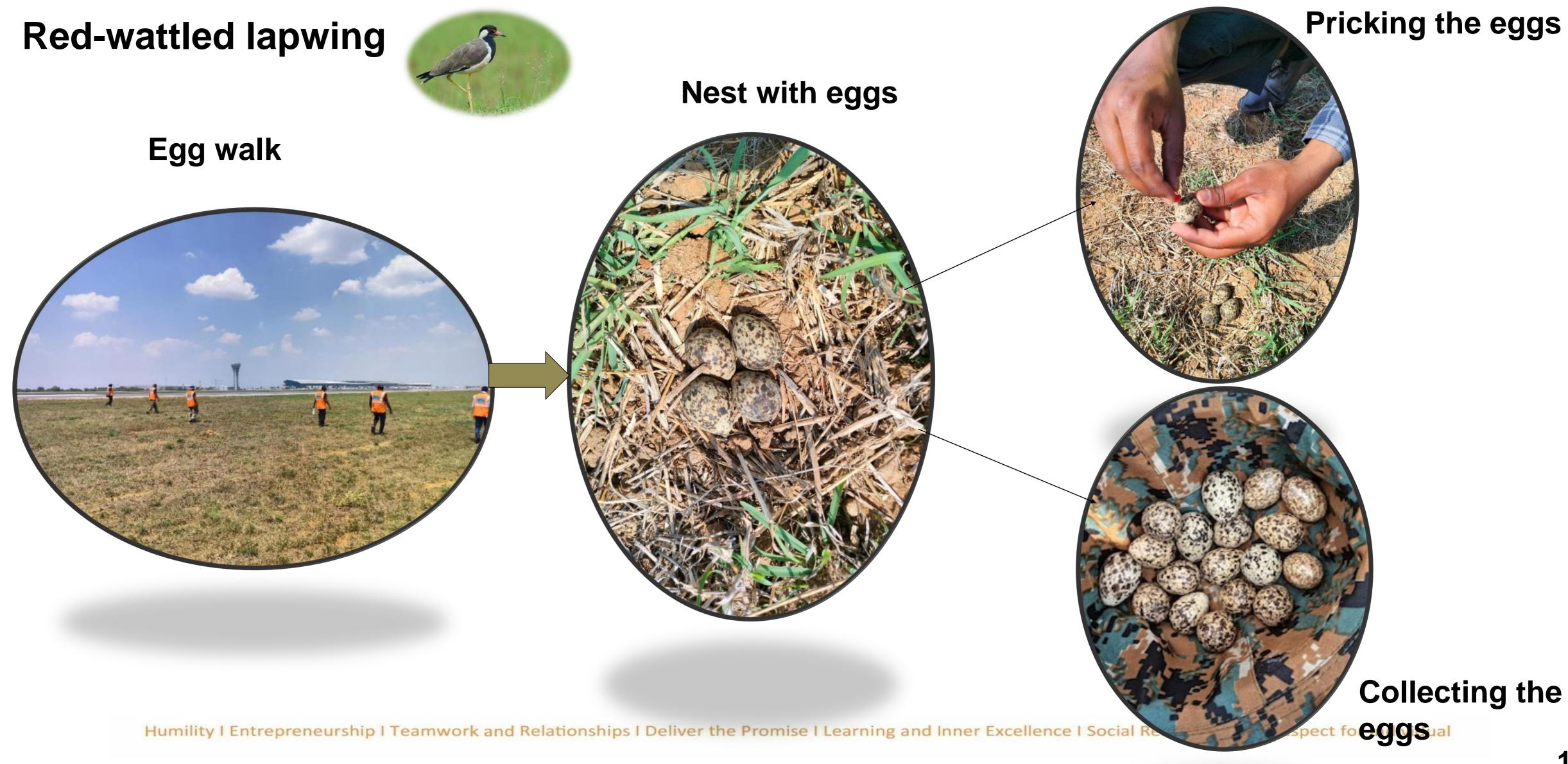








# Species specific approaches

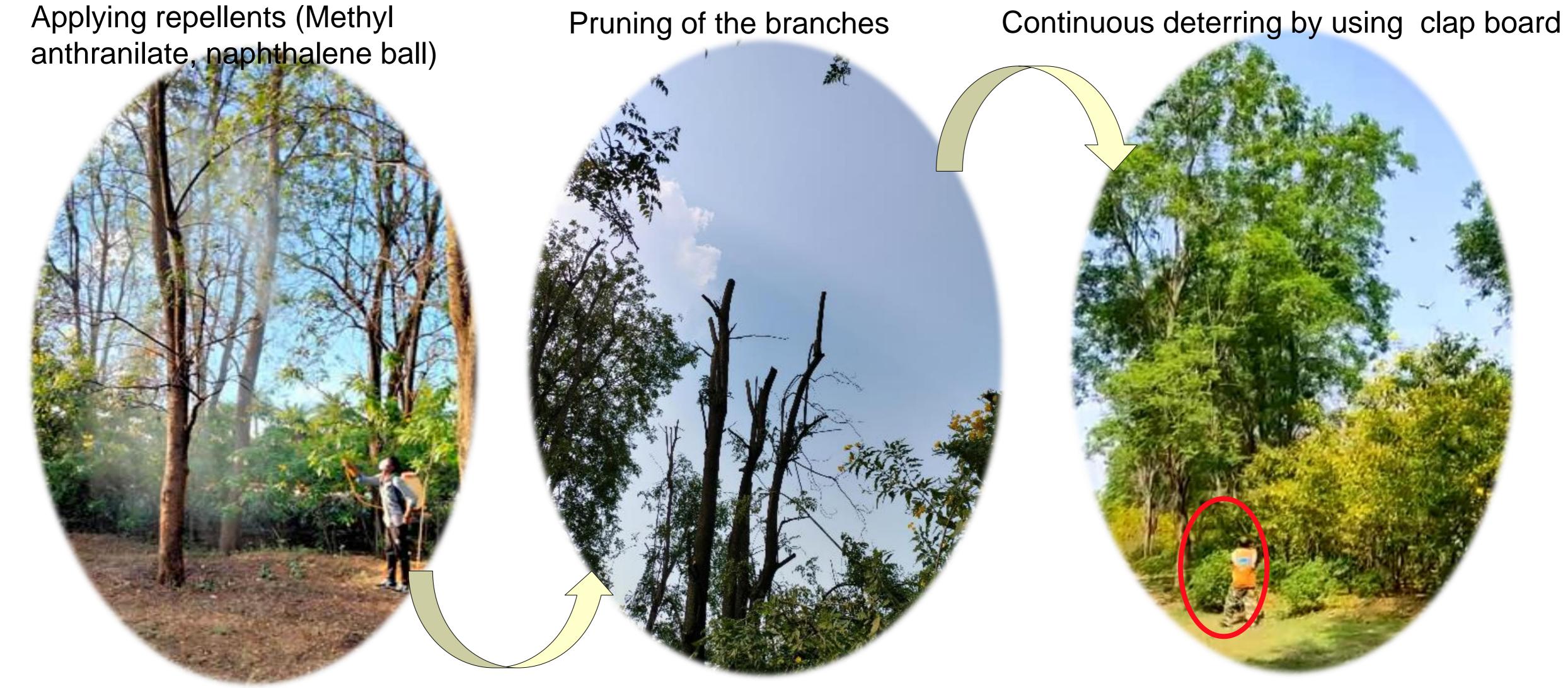








# **Evacuation of bat roost.**





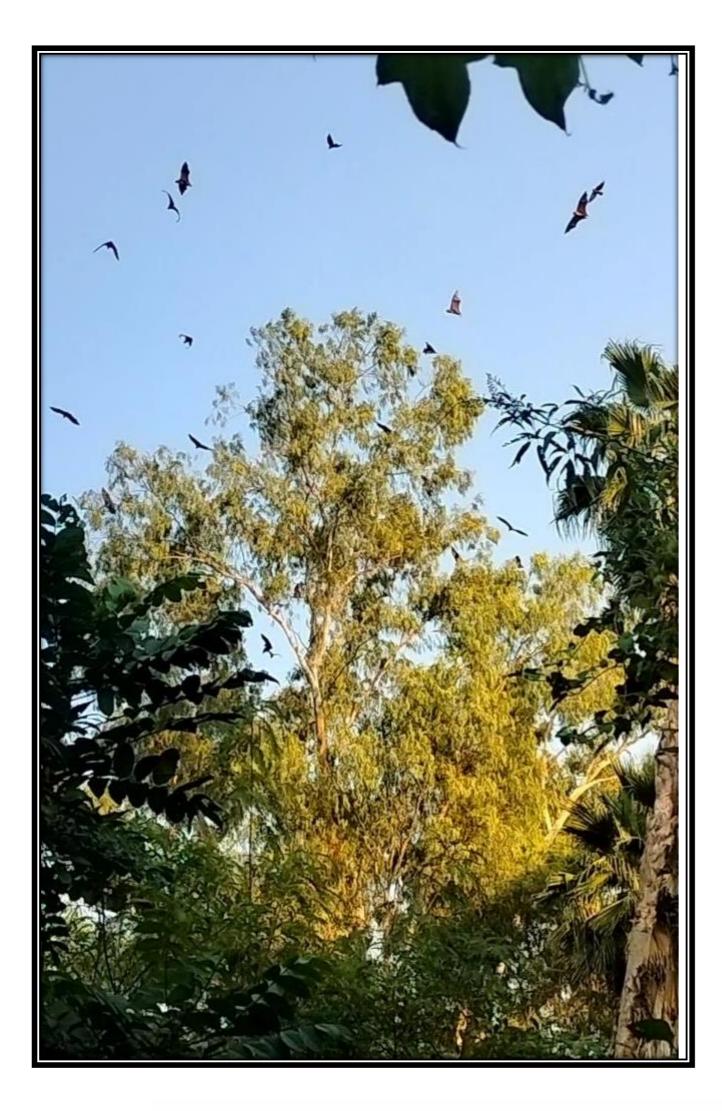


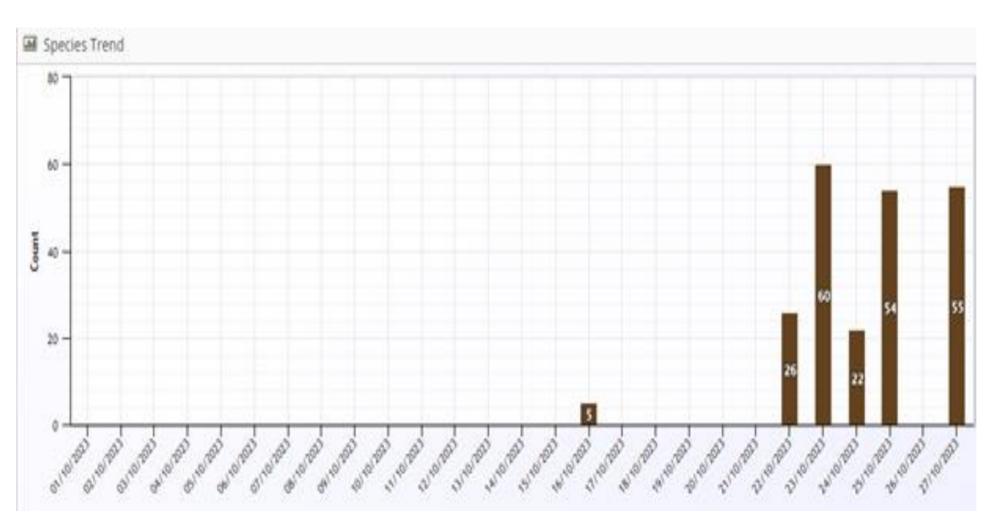






# Removing bat roost from critical location



















### Rope and stick method



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# Peafowl











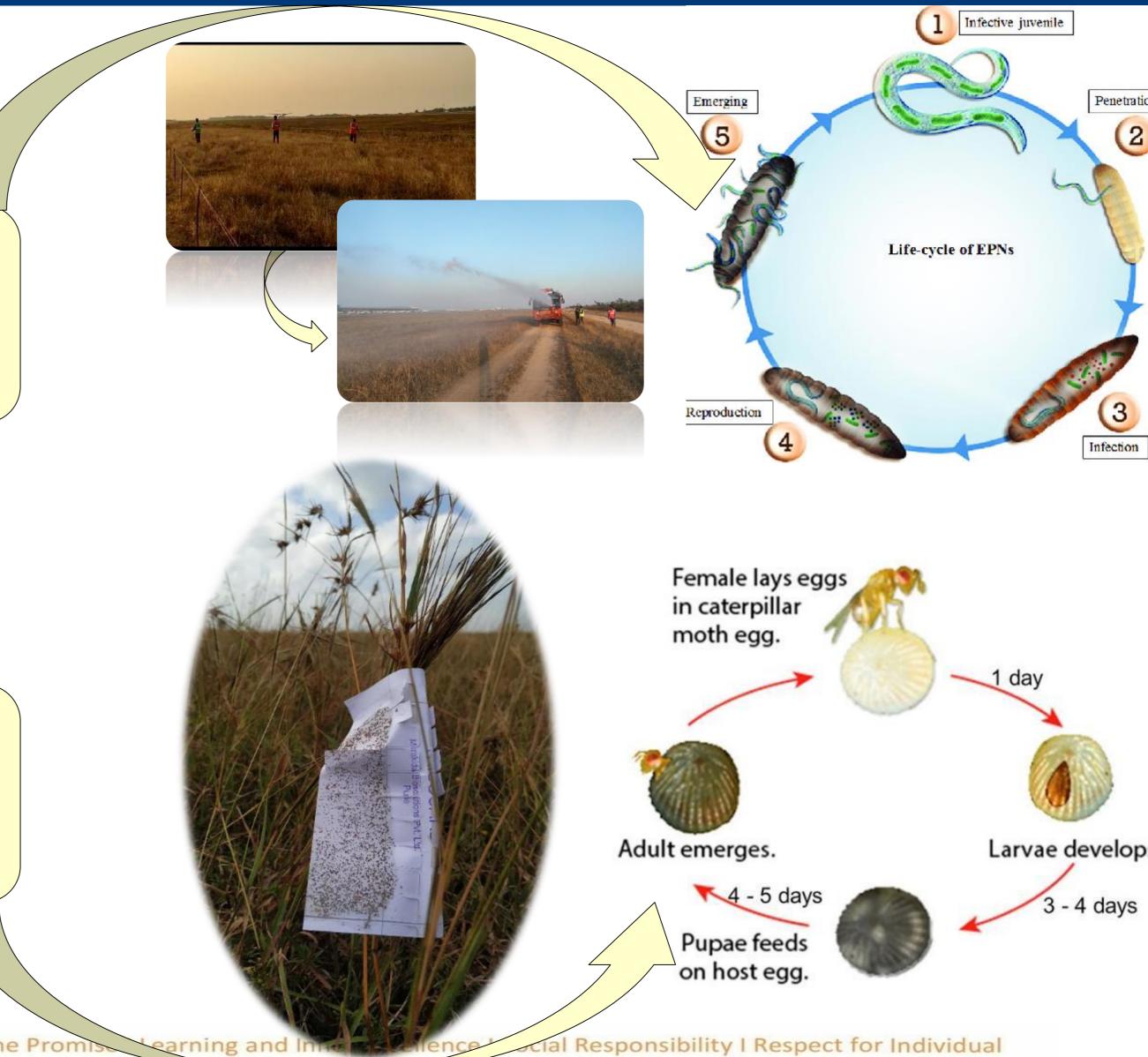
### Entamopathogenic Nematode- To reduce the population of orthopteran insect (Grass hoppers)

### **Trichogramma chilonis-** To reduce the population of lepidopteran insects (Butterflies and Moths)

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# **Biological control method to reduce insect population**

















Samples of blood stain and feather of unidentified species were collected. The samples were shared with scientific institutes (CCMB/SACON/IISER) for species identification.





# Proactive collaboration with surrounding communities

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# Monthly AEMC Survey







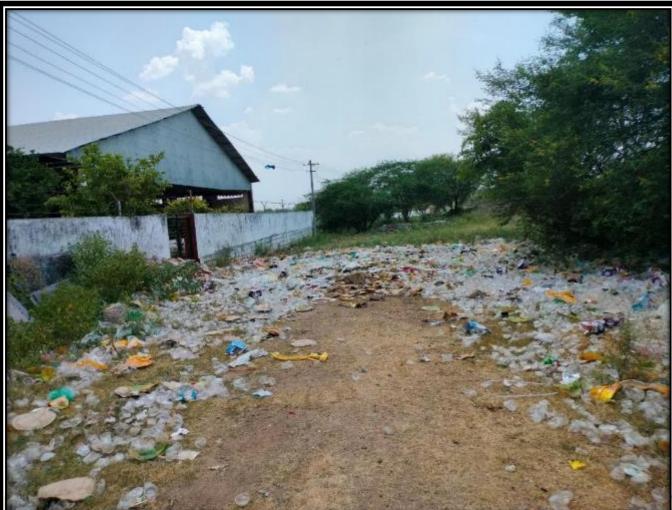






### Before





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### After





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### Survey to assess the status of water bodies











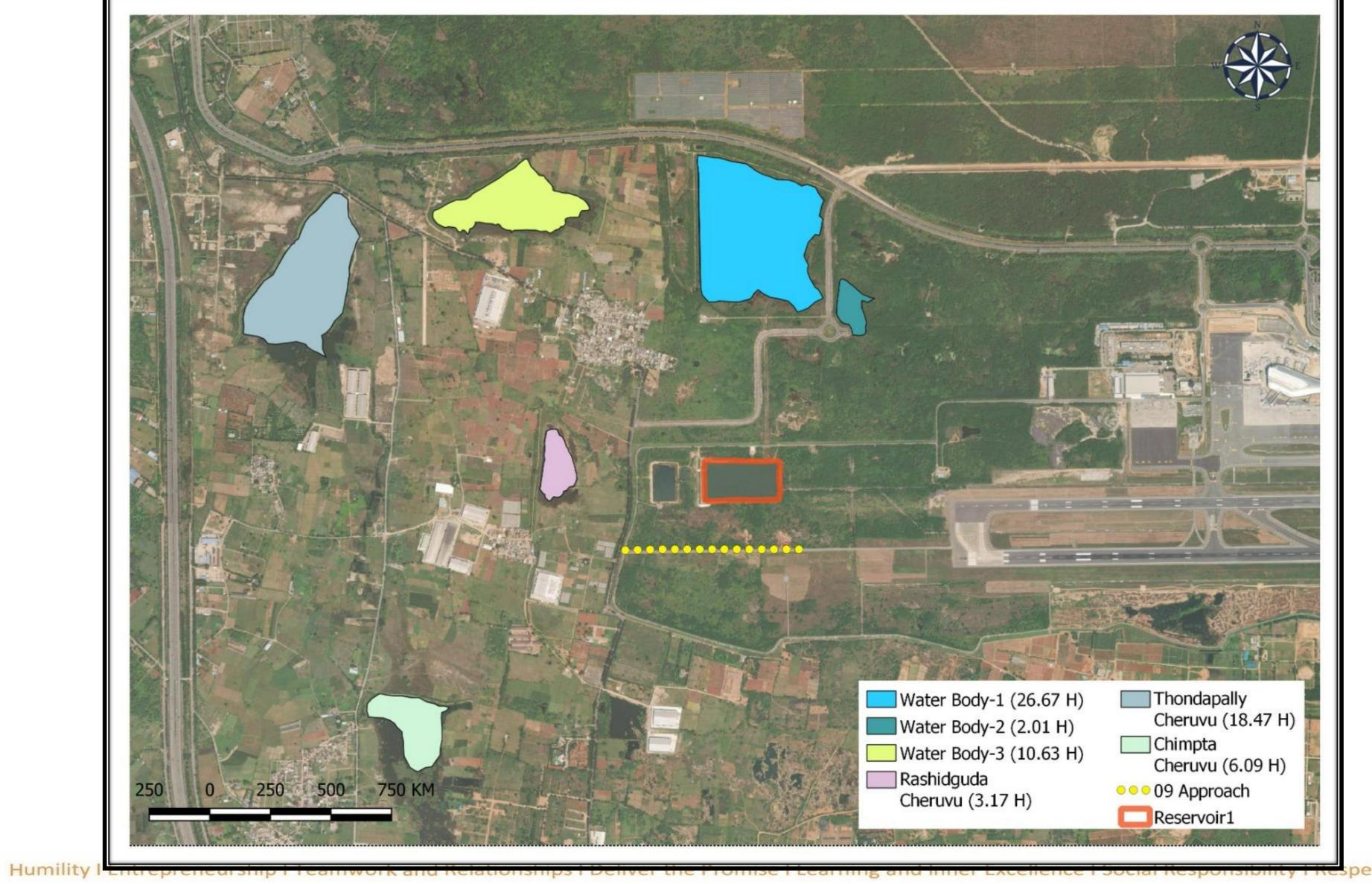








### Major water bodies on the 09R approach





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### Awareness campaigns by BASHM team















### Contd...

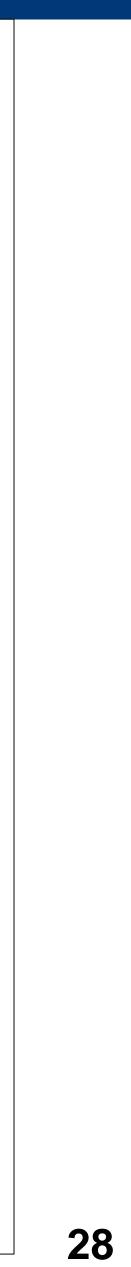












# **Rewards and Recognitions**















# THANK YOU







