



World Bird Strike Association – Dec 2023
MANGALURU INTERNATIONAL AIRPORT

IN - BRIEF

- Tabletop Airport measuring 102.3 meters above sea level on a plot of land measuring 584 acres.
- It is surrounded by heavy vegetation, rich flora and fauna and rural settlements. The vicinity of the airport is also a habitat to natural resources like rivers and sea.
- Total vegetation growth on the airfield is approximately 6.00 million square meters.
- The airport experiences strong monsoons with 3,797 mm of precipitation on average per year, making the Airport vulnerable for birds and wildlife attraction.



IN - BRIEF

The vicinity of Mangaluru Airport is surrounded by rich flora and fauna including snakes, birds, porcupines, monitor lizards, jackals, and more.

- About 32 species of birds.
- About 15 species of snakes.
- About 20 species of mammals.

PREDOMINANT BIRD SPECIES



House Crow



Rock Pigeon



Black/Pariah Kite



Red-Wattled
Lapwing



Cattle Egret



Indian Peafowl

PREDOMINANT SNAKE SPECIES



Indian Rat Snake



Indian Rock Python



Sand Boa



Spectacled Cobra



Russell's Viper



Common Krait

ABOUT ME

- Graduate in Mass Communication and Journalism.
- Wildlife Conservationist in Mangaluru for the past seven years.
- Certified snake rescuer from Karnataka Forest Department (Mangaluru Range).
- Proficiency in reptile management and human-wildlife conflict.
- 600+ snake rescues overall.
- Part of the team of forest department in search and rescue operations of Leopard and Indian Gaur.



ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ
ಮಂಗಳೂರು ವಿಭಾಗ, ಮಂಗಳೂರು

ಪ್ರಮಾಣ ಪತ್ರ



ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ, ಮಂಗಳೂರು ವಿಭಾಗವು,

ಶ್ರೀ ಅತುಲ್ ವೈ, ಅಧಿಕಾರ ಸಂಖ್ಯೆ : **5967 9922 9393** ಇವರನ್ನು ವಸತಿ ಪ್ರದೇಶಗಳಲ್ಲಿ ಜನ ಮತ್ತು ಜಾನುವಾರುಗಳ ಜೀವಕ್ಕೆ ಅಪಾಯವನ್ನು ಉಂಟುಮಾಡುವ ಹಾವುಗಳನ್ನು ರಕ್ಷಿಸಲು ಮತ್ತು ಈ ನಿಟ್ಟಿನಲ್ಲಿ ಕಚೇರಿಯಿಂದ ಹೊರಡಿಸಿರುವ ಮಾರ್ಗ ಸೂಚನೆಗಳ ಪ್ರಕಾರ ಹಾವುಗಳನ್ನು ಸೂಕ್ತ ಆವಾಸಸ್ಥಾನಗಳಿಗೆ ಬಿಡಲು “ಪ್ರಮಾಣೀಕೃತ ಹಾವು ಸಂರಕ್ಷಕರು” ಎಂದು ಗುರುತಿಸಿ, ಮಾನ್ಯತೆ ನೀಡಿದೆ.

ಇವರ ಪ್ರಮಾಣೀಕೃತ ಕೋಡ್ ನಂಬರ್ **MNG/04/2022** ಮತ್ತು ಈ ಪ್ರಮಾಣ ಪತ್ರದ ಮಾನ್ಯತೆಯ ಅವಧಿಯು,
ದಿನಾಂಕ : 07.11.2022 ರಿಂದ 06.11.2023ರವರೆಗೆ ಇರುತ್ತದೆ ಎಂದು ಪ್ರಮಾಣೀಕರಿಸಿದೆ.

ಸ್ಥಳ : ಮಂಗಳೂರು
ದಿನಾಂಕ : 07.11.2022

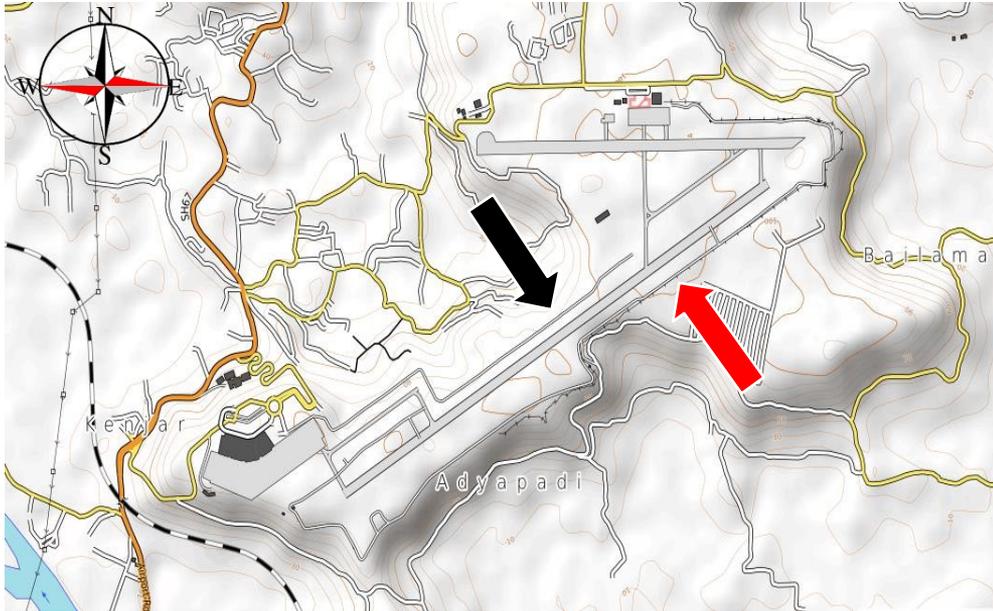


ಸಹಿ : _____
ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ
ಮಂಗಳೂರು ವಿಭಾಗ, ಮಂಗಳೂರು

INVOLVEMENT IN WILDLIFE



ANALYSIS OF BIRD MOVEMENT



The movement patterns of majority of birds were determined based on the weather phenomena and was ascertained that the bird activity at IXE is limited to bilateral movement.

Black Arrow: Indicates movement of birds during dusk. (North to South)

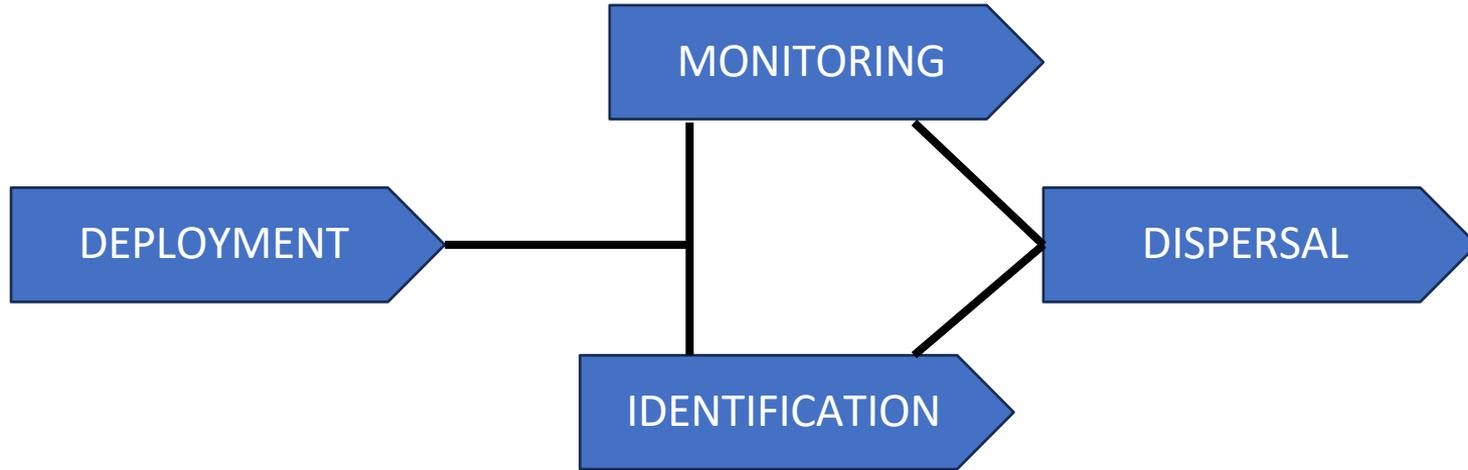
Red Arrow: Indicates movement of birds during the dawn. (South to North)



RESOURCE DEPLOYMENT

- 24x7 deployment on both sides of runway and in wildlife vehicle.
- Strategic deployment pattern based on the bird movement and weather conditions.
- The deployment pattern changes dynamically.
- Trained in scientific snake rescue and relocation as well as first aid measures during snake bites.

CONTINUOUS PROCESS



The resources are deployed on the critical areas of the Airport monitor the birds and wildlife movement 24x7 and disperse them using repellent measures

MITIGATION PLAN



The objective of the "Bird Hazard Mitigation Plan" is to reduce the potential risk posed by birds and implement appropriate measures to reduce their activity into the operational areas.



The plan, which includes species-specific mitigation measures, has been developed using the data obtained by identifying their trajectory and attraction sources over various seasons.

MODIFICATION OF HABITAT

Mangaluru International Airport has minimized the risk of bird-aircraft collisions by effectively modifying the habitat using:

- Vegetation control of critical areas and drains.
- Discouraging nesting and roosting activities.
- Discouraging of laying/hatching of eggs found in critical areas of Airside.
- Pruning of tree branches around fencing.
- Awareness to stakeholders, and public.
- Airfield Environment Management Committee (AEMC) meetings.

MODIFICATION OF HABITAT



Survey in 10-km vicinity of Airport for Unscientific Garbage Dumping, Illegal Slaughterhouses and a periodical follow up meeting with local administration.



Clearance of Foreign Object Debris (FOD) from Airside.



Deployment of Sweeping Machine (MRS).



“Do Not Feed Birds and Wildlife” Awareness signages placed across Airside.

CURRENT MITIGATION MEASURES



Grass Cutting Machine deployed for control on RWY Strip.



Manual hand machine deployed for vegetation control.



Reflective tapes on light poles to deter birds from perching.

CURRENT MITIGATION MEASURES



Awareness to Bird Chasers



Spraying of eco-friendly insecticide

CURRENT MITIGATION MEASURES



AEMC meeting with the District Commissioner (DC)

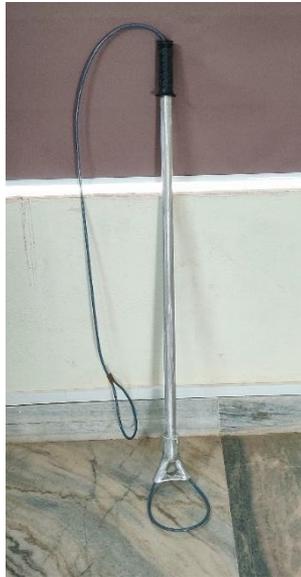


Discouraging roosting spots with bird proof nets.

WILDLIFE EQUIPMENTS



Wildlife Catching Net



Grasper Rope



Bagger Frame



Camera Traps



Snake Rescue Hooks

BIRD SCARING DEVICES



LPG operated Zon Gun



Aerial shots



Six shot launcher



Acoustic devices installed on the follow me vehicles

STAKEHOLDER ENGAGEMENT

- On foot inspection within the airfield to disturb and discourage birds from habituating.
- Imparting awareness sessions to Internal and external stakeholders.



adani

Growth
with
Goodness

Thank You

