

(2) Eco-friendly BASHM measures: Exceeding Expectations of an Increasingly Eco Sensitive World

Suresh Kumar, Vanamitra - Center for Airport Wildlife Management and Research, Bangalore, Karnataka, India

In the wake of treaties, conventions and laws signed by governments around the world pledging to fulfill their obligations and offer their contributions to reduce/mitigate the dangers of climate change and environmental degradations, the pressure on every industry to follow eco-friendly practices in their businesses for creating a sustainable future is unimaginably higher than ever before. Aviation industry, not being an exception, is also following the global trend to become more responsible and contribute positively to the environment be it through fuel efficient aircraft or noise reduction at airports as well as in aircraft engine design, Increasing operational efficiency to reduce fuel & energy consumption etc. In this light, much is expected from the BASHM practice at airports and is looked through a magnifying lens as it deals directly with wildlife and their habitats. The expectations from the various stake holders is exceedingly high, especially so from the general public of biodiversity-rich countries such as India where nature and wildlife are worshipped as a part of daily life, where human/wildlife conflicts are higher than ever before due to the heavy pressure for rapid development of infrastructure leading to large-scale habitat destruction, where airports are more attractive for wildlife than their degraded habitats. Eco friendly BASHM is not just about employing non-lethal methods but about setting the perspective right while holding tightly onto the priorities. It is about finding the balance in an increasingly complex system. It is not an emotional approach to a problem with complex roots but a scientific and systematic approach. It is not limited to the many clever tactical measures but it is about right perspective, accurate measurement of risks in terms of species & areas, species & area-specific risk management measures, deployment of capable and sufficient resources and the list goes on. Passive control or strategic mitigation is at the foundation of eco-friendly BASHM. An eco-friendly BASHM benefits not just the environment, but actually mankind in every possible way.

Kumar, S. 2015. Eco-friendly BASHM measures: Exceeding Expectations of an Increasingly Eco Sensitive World. Proceedings of the North American Birdstrike Conference 15. 35 pages.

Eco-Friendly BASHM Measures



Introduction to

Vanamitra

Centre for Airport Wildlife Management and Research



A Wildlife Conflicts Management, Research and Education Trust specialized in Bird Aircraft Strike Hazard Management (BASHM)



- ❖ Is a Wildlife Conservation & Research Trust based in Bangalore, India involved in Wildlife Conflicts Management & Mitigation, Biodiversity Studies, Ecological Restoration, Education & Awareness and Multi Stake Holder Enrollment & Engagement.
- ❖ Specializes in BASHM.
- ❖ Is an Advisor to various International Airports in India and Member of the National Committee constituted by the Civil Aviation Authority (DGCA)

WILDLIFE CONSERVATION



Various Species of Birds, Vanamitra has worked with



Various Species of Birds, Vanamitra has worked with



Various Mammals Vanamitra has worked with



Various Mammals Vanamitra has worked with



Introduction to India

India – Bio Diversity & Eco Friendliness

India is a Mega diversity Country

Rich Biodiversity is Taken for Granted.

- 1300+ Species of Birds
- 400+ Species of Mammals
- 190+ Species of Amphibians
- 400+ Species of Reptiles
- 20000+ Species of Plants

INDIA Was a Most Eco Friendly Country

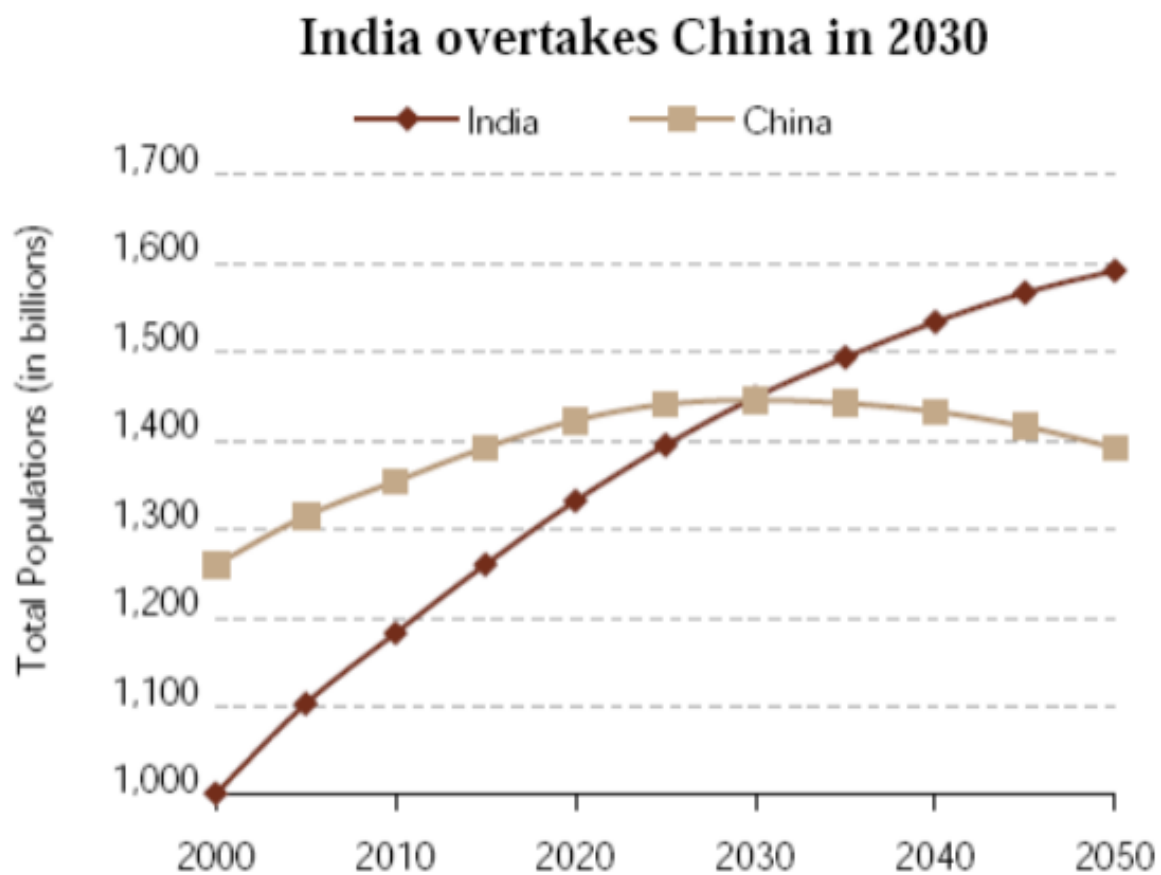


INDIA at Present

- Ever Increasing Human Population
- Ever Increasing Human/Wildlife Conflicts

Development, Conflicts & Need to Conserve

- ❖ To Conserve is a National Need.



Source: UN Population Division: Medium variant

Loss of Natural Habitats due to Development



INDIA at Present

- Rapid and Mindless Destruction of Ecosystems & Species
- Change in Climate & Failure in Natural Cycles
- Scarcity of Water
- Large Scale Deforestation. Larger Wildlife Conflicts with Tigers, Elephants, Leopards, Wild Boars. Conflict with Birds is the Least of Concern to Authorities.
- Heavy Pressure on the Existing Ecosystems

For India, Conservation is a National Necessity,
As much as Sustainability is a Global Necessity

Eco Friendly BASHM

Eco Friendliness in BASHM is to

- ✓ Encourage Natural Predation
- ✓ Reduce/Remove/Hide Attractants
- ✓ Modify / Diversify / Hide Habitats
- ✓ Allocate Sufficient Resources & Budget for BASHM
- ✓ Enroll & Engage Internal Stake Holders
- ✓ Give Equal Importance to Prevention / Pre-emption
- ✓ Identify & Treat Local Bird/Wildlife Population differently
- ✓ Early Interventions on Animal Management

Outside the Airport

- ✓ Continuous Monitoring of Environmental Changes
- ✓ Regular Mapping of Attractants / Species / Concentrations
- ✓ Enroll & Engage External Stake Holders
- ✓ Encourage Protection of Natural Habitats
- ✓ Enforce Legalities
- ✓ Identify & Sustain Right Partners

Look at who are Aligning to Eco-Friendliness



•Countries

Earth Summit / United Nations Framework Convention on Climate Change (UNFCCC) / Kyoto Protocol

•Industries / Business Sectors

Engineering & Construction

Manufacturing

Transportation

Food

Agriculture

Energy

Education

Waste Management



Aviation Sector's Alignment to Eco-Friendliness

- ❖ Green Airports
- ❖ Fuel, Noise & Energy Efficient Aircrafts
- ❖ Reduction in Sound, Air and Water Pollution
- ❖ Green Buildings / Rain Water Harvesting / Solar Energy
- ❖ Efficient Waste Management
- ❖ Targeted Reduction in CO2 Emissions
- ❖ Least Go Arounds
- ❖ Towing From & To Apron

BASHM's Alignment to Eco Friendliness

BASHM's Alignment - 123

1. Non-Lethal Practices / Deterrence

- ❖ Major Job Creation all around the World Year on Year
- ❖ Sustains Livelihood of Thousands of Families worldwide



Yet... Birds/Wildlife Adapt



They Figure out



BASHM's Alignment - 123

2. Identify, Align & Evolve Native Practices (Pigeons – 1500+)



BASHM's Alignment - 123

2. Identify, Align & Evolve Native Practices (Lapwings 450+)



Encouraging Natural Predation - Snakes

- ❖ No Killing
- ❖ No Relocation if found within Airport area, except for Passenger areas.

Contribution:

- ❖ Reduces Ground Breeding Birds Population
- ❖ Keeps Population of Rodents under Control
- ❖ Reduces Food Sources for Birds

Adverse Effects to be Concerned about:

- ❖ Road Kills
- ❖ Attractant to Predatory Birds

Egg Removal instead of Egg Oiling

Lapwing Eggs, Peafowl Eggs from Runway Strips

- ❖ Identify & Partner with an External Agency
- ❖ Incubate, Hatch, Rehabilitate and Release Elsewhere Far away in a suitable Habitat which can sustain the new individuals



BASHM's Alignment - 123

3. Focus on Mitigation

- ❖ Identify, Track & Predict Trends
- ❖ Enroll and Engage ALL Stake Holders
- ❖ Prevent

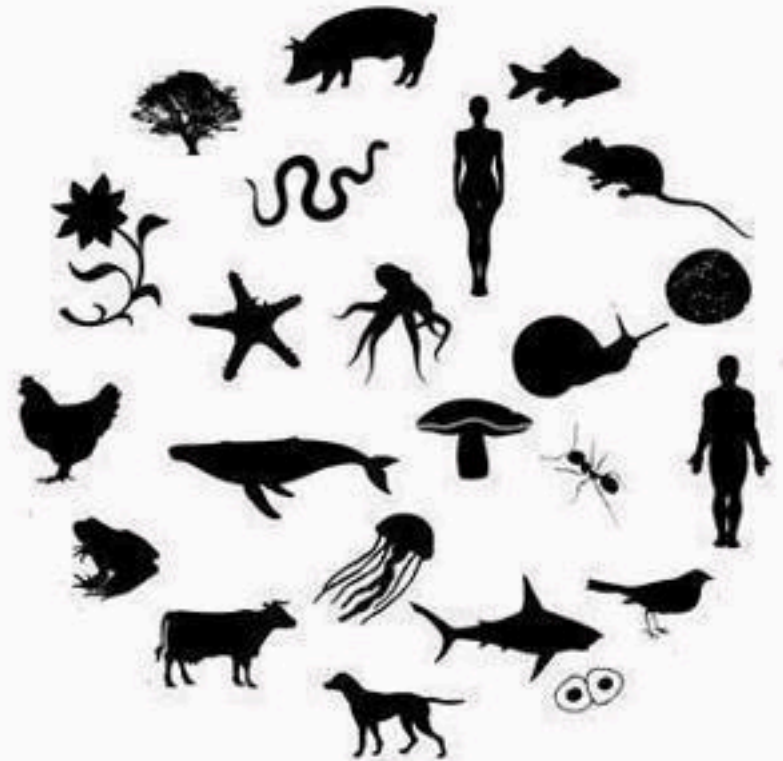
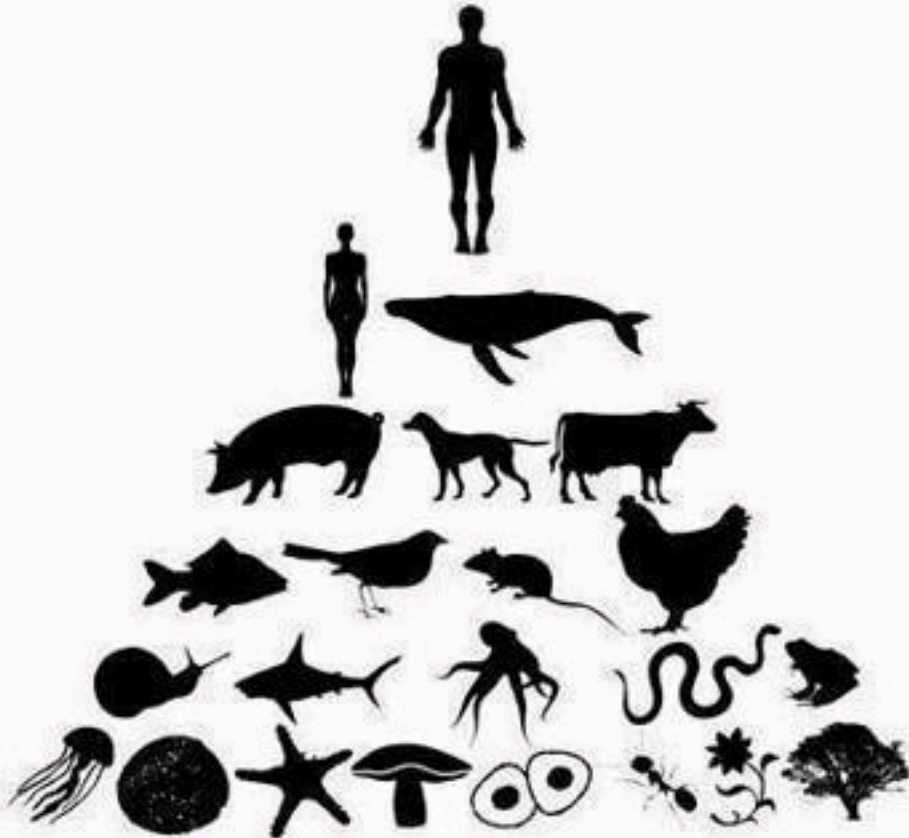
ECO FRIENDLINESS IS A SHIFT IN PERCEPTION

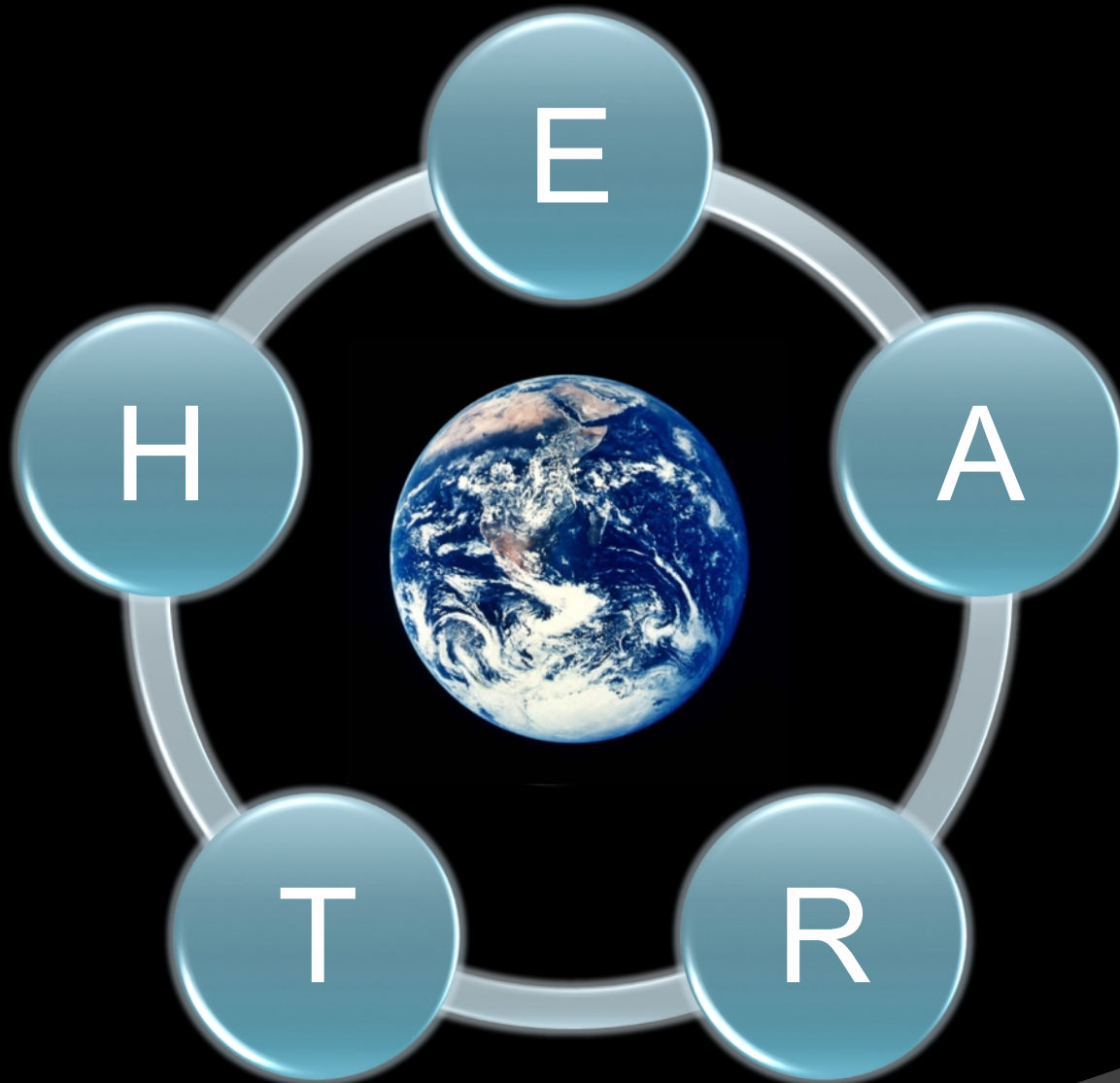
Right Solutions Emerge only from Right Perspectives.

EGO

SHIFT

ECO





Eco Friendliness is Cool

Thank you!

Contact Us at:

Email: suresh@vanamitra.org

Phone: +91 9243414950 / +91 9590331323

Website: www.vanamitra.org

Facebook: vanamitraindia