



GOVERNMENT OF KERALA

Disaster Management (A) Department

No.DMA1/44/2024-DMD

03-05-2024, Thiruvananthapuram

From

Principal Secretary to Government

To

Sri Biswanath Sinha IAS, Additional Chief Secretary, Home & Vigilance Department

Sri. K.R Jyothilal IAS, Additional Chief Secretary, Forests & Wildlife, Power and General Administration Dept.

Dr. A. Jayathilak IAS, Additional Chief Secretary, Scheduled Cast and Scheduled Tribe Development Department, BCDD, Taxes and Excise Department

Sri. K. Gopalakrishna Kurup, Advocate General, Kerala

Dr. Rajan N. Khobragade, Chairman, KSEB

Sri Muhammad Hanish A P M IAS, Principal Secretary, Health Department

Dr. Sharmila Mary Joseph IAS, Principal Secretary, LSGD, WCDD

Sri Asok Kumar Singh IAS, Principal Secretary, Water Resources Department

Sri V Hari Nair, Law Secretary

Dr. B Asok IAS, Agriculture Department and Agricultural Production Commissioner

Sri Sheikh Darvesh Saheb, IPS, State Police Chief, Kerala

Sri K Padmakumar IPS, Director General, Fire and Rescue Services

Sri Ganga Sing IFS, Principal Chief Conservator of Forests & Head of Forest Force

Shri. M.R Ajithkumar IPS, ADGP, Law and Order

Shri. D. Jayaprasad IFS, Principal Chief Conservator of Forests, Chief Wildlife Warden, Forest Department

Dr P. Pugazhendi IFS, Additional Principal Chief Conservator of Forests, Kerala Forest Department

Shri. Pramod Krishnan, Additional Principal Chief Conservator of

Forests (Administration), Forest Department
Dr A Kowsigan IAS, Commissioner, Disaster Management
Shri. Sanjeev Kumar, IGP, South Zone, Police
Dr Dinesan Cheruvat IAS, Joint Managing Director, Kerala Water Authority
Shri. Nizamudeen A IAS, Mission Director , MGNREGS
Smt. Meghashree D.R IAS, Director, Scheduled Tribes Development Department
Shri. Seeram Sambasiva Rao IAS., Director of Agriculture
Shri. Vishnu Pratheep T.K IPS, District Police Chief, Idukki
Shri. T Narayanan IPS, District Police Chief, Wayanad
Dr L. Chandrasekar IFS, Additional Principal Chief Conservator of Forests (Vigilance & Forest Intelligence)
Shri. Vinod Kumar D.K IFS, Chief Conservator of Forest, Forest Department
Dr Sekhar L Kuriakose, Member Secretary, KSDMA
Dr Ummuselma, Joint Director (Public Health), Principal Directorate, Local Self Government Department
Shri. Sivadasan M, Chief Engineer, Irrigation and Administration , Irrigation Department
Shri. Shumin S Babu, Deputy Director, Tribal Resettlement and Development Mission
Shri. Nagaraja Narayanan, Special Govt. Pleader
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Dr Harikumar S, Asst. Director (PH), Directorate of Health Services
Dr Manu M S, SNO, National Program for Climate Change and Human Health, NHM
Shri. Jayachandran , C.M, KSDMA

Sir,

Sub: DMD- Minutes of High Level Consultation Workshop held on 25.03.2024 regarding Human-Animal Conflict-reg

Ref: DO No. DMA1/44/2024-DMD dated 19.03.2024 from Smt

Tinku Biswal IAS, Principal Secretary, Revenue & Disaster
Management

With reference to the above, I am to forward herewith a copy of the minutes of the High Level Consultation Workshop regarding Human-Animal Conflict held on 25.03.2024 for information and further necessary action.

Yours Faithfully,
NISSAR A
UNDER SECRETARY
For Principal Secretary to Government.

Approved for Issue,

Signed by

Sivaprasad V N

Date: 03.05.2024 17:19:45
Section Officer.

Copy to:

Staff Officer to Chief Secretary

CA/PA to Principal Secretary, Revenue & DMD

CA to Joint Secretary , DMD

CA to Joint Secretary(Sri. Binu), Law Department

CA to Joint Secretary(Smt.Deepa Sivadasan) Home Department

CA to Deputy Secretary (Sri Hari Kumar) SC&STDD



Report and minutes of the Consultation Workshop on Human-Animal Conflict as a State Specific Disaster

Held at Hotel Apollo Dimora, Thiruvananthapuram

Dated: 25.03.2024

Background

Human-Animal conflicts pose significant challenges to both human communities and wildlife populations across the state. Recognizing the severity of this issue, the Government of Kerala has notified Human-Animal Conflicts as a state-specific disaster vide GO (Ms) No. 4/2024/DMD, issued on the 7th of March 2024. The Government also constituted a state level committee and a state level committee of officers vide GO (Ms) No. 12/2024/F&WLD dated 7-3-2024 for planning, management, response and mitigation of this disaster. The first meeting of the committee was held on 14-3-2024 (Ltr. No. D2/61/2024-For dated 1-4-2024).

To address the requirements relating to interdepartmental convergence of actions for address the newly notified State Specific Disaster, Kerala State Disaster Management Authority convened a crucial meeting with Secretaries and Heads of relevant Departments on 25-3-2024. This collaborative effort aims to strengthen the state's ability to manage Human-Animal Conflicts (HAC). By working together, they can ensure the safety and well-being of citizens while safeguarding the state's rich biodiversity. This upcoming meeting signifies a turning point in tackling HAC. It paves the way for proactive and sustainable disaster management strategies, fostering a future where humans and wildlife can coexist peacefully.

Introduction

This report summarizes the consultation workshop held on March 25th, 2024, at Apollo Dimora, Thiruvananthapuram, to discuss and finalize norms of assistance, guidelines, and Standard Operating Procedures (SOPs) for Human-Animal Conflict (HAC) mitigation in Kerala. The workshop, convened by the Kerala State Disaster Management Authority (KSDMA), brought together senior officials from various departments crucial to addressing HAC.

The State Relief Commissioner & Principal Secretary, Disaster Management started off the meeting by highlighting the necessity of a guidelines and an SOP with a graded approach towards response. Decision making matrix to identify the magnitude of the threatening disaster situation and response methods is highly essential in the State.

Representatives from twelve departments, including Forest, Local Self Government, Scheduled Tribe, Animal Husbandry, Revenue, Agriculture, Police, Fire, Health, Irrigation,



KSEB, and KWA, shared their perspectives on addressing Human-Animal Conflict as a State-Specific Disaster. The discussions were video recorded and the video recording is kept as minutes in Kerala State Disaster Management Authority archives.

Objectives

The primary objectives of the workshop were:

- To evolve an action plan for addressing human-animal conflicts
- To discuss and finalize norms for financial assistance to be provided in HAC situations
- To pave way for developing a comprehensive guideline for preparedness, response, relief, and mitigation of HAC incidents
- To establish SOPs for a coordinated response by various departments during HAC events

DEPARTMENTAL INPUTS

Forest Department (KFD)

- **Financial Needs:** Identified long-term and short-term plans for mitigation and management of HWC, requiring funds for execution.
- **Capacity Building Needs:** Emphasized the need for specialist teams, wildlife veterinary specialists, and strengthening Rapid Response Teams (RRTs).
- **Legislative/Policy Needs:** Suggested simplification of procedures, amendments to wildlife protection acts, and streamlining compensation processes.
- **Enforcement Needs:** Advocated for site-specific SOPs, stakeholder sensitization, and stringent mechanisms to avoid misinterpretation.
- **Preparedness Needs:** Highlighted the establishment of SEOC & DEOCs, surveillance systems, and landscape-level planning in HWC hotspots.
- **Management/Mitigation Needs:** Stressed implementing measures to reduce human-wildlife interface, consolidating wildlife corridors, and habitat improvement. Needs dedicated Wildlife Veterinarians.

Animal Husbandry Department

- **Financial Needs:** Financial provisions for livestock loss compensation, exploring inclusion of HAC in agricultural insurance schemes.



- **Mitigation Steps:** Habitat management, reducing attractants (waste management), educating communities on animal behavior, providing livelihood alternatives, utilizing technology-based solutions (fencing, early warning systems, drones).

Water Authority

- **Common Solutions:** Recommended physical barriers, afforestation, early warning systems, and increasing water availability in forest areas.
- **Institutional Mechanism & Financial Provisions:** Proposed coordination mechanisms, rapid action teams, and financial support for departments.
- **Mitigation Steps:** Suggested facilitating water supply, forest stream rejuvenation, rainwater harvesting, and afforestation.

Health Department

- **Existing Mechanisms:** Coordination with Forest Department for medical care of affected humans, reporting systems for animal bites.
- **Needs:** Financial provisions for treating HAC victims, improved infrastructure and specialist manpower for handling critical cases, compensation for victims and treating facilities

Kerala State Electricity Board (KSEB)

- **Challenges:** Balancing water needs for wildlife with power generation requirements.
- **Mitigation Steps:** Exploring ways to supplement water holes near reservoirs, ensuring minimal impact on power generation.

Police Department

- **Needs:** Financial assistance for rescue operations, capacity building for law enforcement related to wildlife and environment, legislative amendments for better control of problem animals.
- **Mitigation Steps:** Public awareness campaigns, improved infrastructure (vehicles), early warning systems, technical support for tracking animals.

Scheduled Tribe Department



- **Suggestions:** Enhanced compensation and faster disbursement for affected tribal communities, training programs for tribal promoters on HAC prevention, representation in HAC committees, employing tribals in forest departments for prevention activities.

Agriculture Department

- **Mitigation Steps:** Physical barriers to prevent animal intrusion, early warning systems, drone monitoring, infrastructure development, compensation and insurance schemes for affected farmers, habitat improvement for animals within forests, training and awareness programs.
- **Needs:** Enhanced financial provisions, timely allocation of disaster relief funds, capacity building for farmers, legislative changes for culling problem animals (wild boars), strengthening local participation in mitigation efforts.
- **Relief:** Crop loss assessment and relief assistance disbursement is handled by the AD through AIMS portal. The department will be able to facilitate the same service to FD with appropriate data flow.

Animal Husbandry Department

- **Existing mechanisms:** State Animal Welfare Board and have some guidelines available. Vaccination of community and domestic animals are taken care by the department such that spill over of diseases are minimal to wild animals. Disease surveillance is taken care by the Department. Forest veterinarians are on deputation from AH to FD.
- **Needs:** Tranquilisation training to department doctors.
- **Legal provisions:** 5 animal freedom that Supreme Court upholds are to be considered as it will soon be part of the Act. Community animals are the responsibility of Local Self Governments and Wild Animals are under the Forest Department (property managed by Local Self Government and Forest Department). Apart from CrPC 133, section 144 CrPC also needs to be closely examined in the context of HAC.
- **Relief provisions:** There are existing provisions and the Department is aligning it with SDRF norms. Animal Husbandry department will be able to take care of domestic animal loss assessment and relief payment management provided appropriate data flow is established for the purpose and with funding from SDRF.



- **Mitigation Steps:** Need to explore the possibility of cattle insurance along forest fringes. In the IEC campaigns, the possible conflict avoidance distances with animals can be explored.

Local Self Government Department

- **Mitigation Suggestions:** Cultivating bamboo in forests, rejuvenating water streams, constructing fences and trenches within forest areas, afforestation programs. Convergence of MGNREGs activities for reducing HAC will be explored.
- **Challenges:** Lack of knowledge sharing between departments

Advocate General's office

- The use of Disaster Management Act, 2005 for taking culling steps should be limited to the most extreme situation and rarest of rare events
- The use of provisions of CrPC may not be accepted by Hon'ble High Court, but in very rare cases, the possibility of using relevant provisions may be explored

Irrigation Department

- **Challenges:** Lack of dedicated financial provisions for HAC management.
- **Mitigation Steps:** Exploring possibilities of supplying water to forest water holes from nearby irrigation sources, identifying and utilizing natural water sources within forests for animal use. Utilising the spring development project for increasing water availability in forest areas

Fire

- **Challenges:** Lack of dedicated financial provisions for HAC management and lack of skilled human resource in handling HAC
- **Needs:** Require specialised vehicles for moving in forest area and address forest fire and human-animal conflict issues

Land Revenue

- **Existing mechanisms:** The land revenue machinery will come to the assistance of forest department. India Disaster Resource Network may be explored by all departments to find data regarding equipment



- **Relief:** The relief management of human life lost and housing loss are taken care through relief portal. Land Revenue will be able to handle matters related to loss assessment and relief assistance disbursement of the above items.

Summary of Departmental Inputs

Forest Department (KFD)

- Requires funding to implement long-term and short-term plans for HAC mitigation and management.
- Needs specialist teams, wildlife vets, and improved Rapid Response Teams (RRTs).
- Seeks simplified procedures, amendments to wildlife protection acts, and streamlined compensation processes.
- Advocates for clear guidelines, stakeholder awareness, and measures to avoid misinterpretations.
- Emphasizes establishing emergency response centers, surveillance systems, and landscape planning in high-conflict areas.
- Stresses implementing measures to minimize human-wildlife interaction, strengthen corridors, and improve animal habitats.

Key Needs from Other Departments:

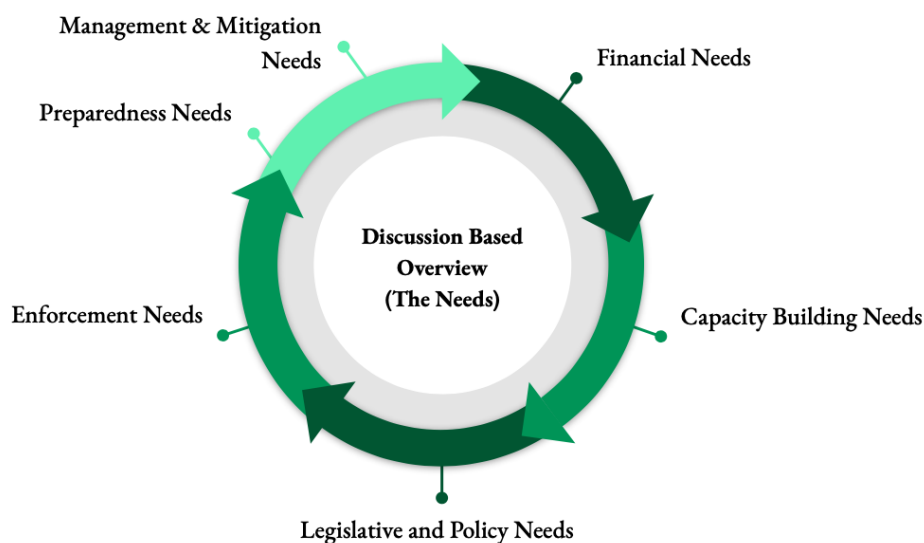
- **Animal Husbandry:** Funding for livestock compensation and exploring HAC resultant domestic animal loss in the ambit of insurance.
- **Water Authority:** Coordination mechanisms, rapid response teams, and financial support for departments. Recommends physical barriers, afforestation, early warning systems, and improved water availability in forests.
- **Health Department:** Funding for treating HAC victims, improved infrastructure, specialist personnel, and compensation for victims and treatment facilities.
- **Kerala State Electricity Board (KSEB):** Balancing water needs for wildlife with power generation. Exploring ways to supplement water holes near reservoirs with minimal impact on power generation.
- **Police Department:** Financial assistance for rescue operations, capacity building for wildlife law enforcement, and legislative amendments for managing problem animals. Proposes public awareness campaigns, improved infrastructure, early warning systems, and technical support for animal tracking.



- **Scheduled Tribe Department:** Enhanced compensation and faster disbursement for affected communities, training programs for tribal promoters, representation in HAC committees, and employing tribes in forest prevention activities.
- **Agriculture Department:** Physical barriers, early warning systems, drone monitoring, infrastructure development, compensation and insurance schemes for farmers, habitat improvement for animals, training, and awareness programs. Needs include enhanced financial provisions, timely disaster relief funds, capacity building for farmers, legislative changes for culling problem animals, and stronger local participation.
- **Local Self Government Department:** Recommends cultivating bamboo in forests, rejuvenating water streams, constructing fences and trenches, and afforestation programs.
- **Irrigation Department:** Exploring supplying water to forest water holes from nearby irrigation sources and utilizing natural water sources within forests for animals.

Discussion Overview

The meeting served as a platform for a comprehensive exchange of ideas and needs regarding effective HAC management. Key areas of discussion included:



Financial Needs:

- All departments highlighted the need for increased financial resources to implement mitigation strategies.
- The Forest Department presented its long-term and short-term plans for HAC management, which require funding for physical barriers, wildlife habitat improvement, and capacity building.



- Discussions also explored possibilities of international funding sources.

Capacity Building Needs:

- The need for a specialized workforce equipped to handle HAC situations was emphasized.
- This includes wildlife biologists, sociologists, veterinarians, and trained personnel for rapid response teams.
- Strengthening awareness and training programs for local communities and PFM institutions was also deemed crucial.

Legislative and Policy Needs:

- In many states, the notification of Human Animal conflict has been only facilitating relief. SEC may consider if the ambit of this notification may be limited to only relief assistance and leave the preparedness, response and mitigation actions exclusively to Forest and Wildlife Department
- Discussions centered on simplifying existing MoEFCC and NTCA guidelines and SOPs.
- Amending the Wildlife Protection Act provisions regarding delegation of powers and declaring specific species as vermin was proposed.
- Additionally, streamlining compensation processes through Revenue and LSGD departments under SDRF was discussed.

Enforcement Needs:

- The importance of establishing site-specific and species-specific protocols under the Disaster Management Act was highlighted.
- This would clearly outline the duties and responsibilities of all stakeholders and ensure proper enforcement to avoid misinterpretations and false information.

Preparedness Needs:

- Establishing State Emergency Operation Centers (SEOCs) and District Emergency Operation Centers (DEOCs) with links to existing disaster management networks was proposed.
- Additionally, the need for robust surveillance systems, landscape-level planning in HAC hotspots, and research on wildlife behavior and mitigation strategies was emphasized.

Management and Mitigation Needs:

- Implementing long-term and short-term mitigation measures identified by the Forest Department, including reviving wildlife corridors, habitat improvement activities, and strategic use of physical barriers, were discussed.



- Leveraging technology, awareness creation, and research were also seen as crucial aspects of a sustainable approach.



Recommendations to the high-power committee constituted vide GO (Ms) No. 12/2024/F&WLD dated 7-3-2024

Action Plan			
Short Term			
Sl. No	Activity	Time line	Responsible Department
1	Establishing State and Division Emergency Operations Centres	3 months	F & WD
2	Dedicated mobile numbers for State FEOC (State Forest EOC) and FDEOC (Forest Division EOC)	1 month	
3	Satellite phones for all divisions	3 months	
4	Dedicated mobile phones and numbers for the RRTs	1 month	
5	Creating division level WhatsApp groups with Land Revenue, DEOCs (District EOCs of DDMA's) Police, Local Self Governments, Agriculture, Scheduled Tribes and Animal Husbandry	1 month	
6	Earmarking at least Rs. 5000 per Forest Beat Officer as imprest fund for addressing HAC	3 months	
7	Advertising the dedicated mobile numbers of SFEOC, FDEOC and RRTs in print media	3 months	
8	Color coding threat level based on animal species	3 months	F & WD, KSDMA
9	Basic GIS based on Google Earth in SFEOC and FDEOC for locating incidence reporting	2 months	F & WD, KSDMA
10	Incident Response System notification for Forest Department	2 months	F & WD, KSDMA
11	Norms of assistance for HAC	1 month	F & WD, KSDMA
12	IEC materials on dos and don'ts	3 months	F & WD, KSDMA
13	Standard Operating Procedures for inter departmental collaboration on HAC response (Orange Book for HAC)	2 months	F & WD, KSDMA, AH, Police, STDD, Land Revenue
Medium Term			
1	Dedicated loss assessment portal for HAC	1 year	F & WD, KSDMA, Land Revenue, Animal Husbandry, Agriculture, NIC
2	Guidelines for management of HAC as a disaster (Disaster	1 year	F & WD, KSDMA, Advocate General's



	Management Act and Wildlife Protection Act)		office
3	Decision matrix for identifying specific dangerous animals and SOPs for responding to such specific animals	6 months	F & WD, KSDMA
4	Human-Animal Conflict Hazard, Vulnerability and Risk Assessment methodology and assessment	6 months	F & WD, KSDMA
5	Integration with CAP alert system	1 year	KSDMA
6	Training veterinarians of Animal Husbandry department in darting	1 year	F & WD, Animal Husbandry
7	Training Civil Defence, Aapda Mitra and Fire and Rescue Officers in animal handling	1 year	F & WD, Animal Husbandry, Fire and Rescue, KSDMA
8	Complete mapping of all water sources in forest areas	1 year	F & WD, KSREC
9	Explore the probability of establishing wild animal rescue centres	1 year	F & WD, KSDMA, LSGD, Land Revenue
10	Possibility of converting the presently proposed animal shelter in Wayanad as a wild animal rescue shelter	1 year	F & WD, KSDMA, LSGD
Long Term			
1	Complete incident response decision support system (HACDSS)	2 years	F & WD, KSDMA
2	Integrated instrumentation for HAC monitoring and integration to HACDSS	3 years	F & WD, StartUp Mission
3	Prepositioning of Kunki Elephants at identified hotspots	2 years	F & WD
4	Monitoring of water holes and check dams through camera and piezometers (water level)	2 years	F & WD
5	Increasing water sources and water availability to animals in Forest areas, particularly in hotspots	2 years	F & WD, Irrigation Department
6	Reducing and vacating encroachment into forest fringes	2 years	F & WD, Land Revenue, LSG

- As human-animal conflict is notified as a state specific disaster in many states only for the purpose of extending relief assistance, Forest Department has suggested that SEC may consider limiting the ambit of this notification to relief assistance alone.
- The above action plan may be accepted by the high-power committees



List of Participants:

1. Dr. V. Venu IAS, Chief Secretary and Chief Executive Officer, KSDMA
2. Mr. K.R Jyothilal IAS, Additional Chief Secretary, Forests & Wildlife Department
3. Smt. Tinku Biswal IAS, State Relief Commissioner & Principal Secretary, Disaster Management
4. Adv Asok M Cherian, Additional Advocate General, Kerala
5. Shri. Ganga Singh IFS, Principal Chief Conservator of Forests & Head of Forest Force
6. Shri. M.R Ajithkumar IPS, ADGP, Law and Order
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16. Shri. Vishnu Pratheep T.K IPS, District Police Chief, Idukki
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23. Shri. Shumin S Babu, Deputy Director, Tribal Resettlement and Development Mission
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28. Shri. V. Sidhakumar, Kerala Fire And Rescue Service
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30. Dr Jacob Alaxander, DD, MSVH
31. Dr Harikumar S, Asst. Director (PH), Directorate of Health Services
32. Dr Manu M S, SNO, National Program for Climate Change and Human Health, NHM
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38. Shri. Sivaprasad V N, Section officer, DMD
39. Smt. Keerthy Sreekumar, Senior Grade Assistant, DMD
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41. Shri. Jayachandran, CM, KSDMA
42. Shri. Ajmal. S, OM, KSDMA
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44. Shri. Sainul Abid K. T, MTO, KSDM
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46. Dr Midhila M, State Project Officer, KSDMA