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Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय
(Project Elephant Division/हाथी परियोजना प्रभाग)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003

Dated 29th August, 2022

OFFICE MEMORANDUM

Subject: Proceedings of the Fourth Central Project Elephant Monitoring Committee (CPEMC) held on 13th August 2022, 9.30 AM at Kalari hall, Periyar Tiger Reserve, Kerala-reg.

The undersigned is enclosing herewith the approved Proceeding of the fourth Meeting of the Central Project Elephant Monitoring Committee (CPEMC) held on 9:30 AM on 13th August, 2022 at the Kalari Hall, Peiryar Tiger Reserve, Kerala

2. This issue with the approval of the Additional Director General of Forest (Project Tiger), MoEF&CC.

Encls: as above



(Dr. K. Muthamizh Selvan)
Scientist 'E' (Project Elephant)
Email id: km.selvan@gov.in
Telephone No. 011-24695067

Distribution:

- As per list enclosed.

Copy to :

1. PPS to Director General of Forest & Special Secretary, MoEF&CC.
2. PS to Additional Director General of Forest (NTCA), MoEF&CC.
3. PS to Inspector General of Forests (Project Elephant), MoEF&CC.

Proceedings of

Fourth Meeting of the Central Project Elephant Monitoring Committee (CPEMC)

The Central Project Elephant Monitoring Committee (CPEMC) was reconstituted by the Project Elephant on 28th march 2022. The fourth CPEMC meeting involving the newly constituted committee members was held on 13th August 2022, 9.30 AM at Kalari Hall, Thekkady, Periyar Tiger Reserve in Kerala. The meeting was chaired by the Dr. Satya Prakash Yadav, Additional Director General of Forests, Project Tiger & Member Secretary (NTCA), MoEF&CC. The meeting was also attended by the members of the Captive Elephant Healthcare & Welfare Committee.

List of participants is annexed.

The Member Convener of the CPEMC, Shri. Ramesh Kumar Pandey, Inspector General of Forests and Director (PE Division), MoEF&CC welcomed the members of both the committees. The rationale behind constitution of the CPEMC, which was created to specifically address major challenges facing elephant conservation and management of human–elephant conflict was elaborated.

Agenda-1: All-India synchronized elephant and tiger population estimation of 2022

The IGF (PE) mentioned that for the first-time ever the all-India tiger population estimation and the all-India elephant population estimation is being synchronized considering the high habitat overlap between both the species. The all-India elephant population estimation is being carried out since 1993 at 5-year interval. The IGF (PE) mentioned that the fund shortage for WII, which is coordinating the efforts to conduct population estimation of both tiger and elephant synchronously, has been sorted out and that the additional funds as required by WII has been mobilized.

The CPEMC member Shri. D.V.S. Khati mentioned that the synchronized elephant census has been carried out even in the past in the State of Uttarakhand. To this, Dr. S.P. Yadav, Chairman of the committee clarified that synchronized elephant census carried out in the past involved conducting population estimation of elephants in the shared landscapes across different states in a synchronous manner (estimation was done for different states together) so as to avoid duplication.

He further mentioned that in the ongoing effort, the synchrony is related to population estimation of both tigers and elephants carried out together considering the high overlap between both the species. As part of the National Tiger Status assessment, data is being recorded on elephant occupancy and relative abundance through the MStrIPES Ecological

application. These include a) elephant sign survey in each beat with three replicate walks of 5 km each in an occupancy framework, b) dung plots to estimate elephant dung density. Fresh dung samples of elephant encountered during the survey will be sampled for genetic analysis. After individual identification from genetic analyses, information on individuals and their distribution in space will be obtained. A Protocol for the All India Elephant, Tiger and Leopard estimation has been developed by the WII and released by the Hon'ble Minister EF & CC during world elephant day 2021.

The Chairman of the CPEMC Dr. S.P. Yadav mentioned that the progress in carrying out the synchronized tiger and elephant census remain less satisfactory and that there is an urgency to ramp up the activities, particularly after the monsoon ends. The Chairman asked on the current status of data collection from the elephant range states.

CWLW, UP mentioned that data collection has been completed in some of the tiger reserves and the status regarding other areas would be assessed soon. CWLW, Kerala mentioned that the status of data collection in Kerala would be assessed soon. APCCF (Wildlife), Chhattisgarh mentioned that data collection has been completed and that the samples were sent to WII. APCCF (Wildlife), West Bengal mentioned that the details would be assessed soon and communicated.

The Chairman summarized that Project Elephant would convene a meeting with WII and the State Forest Departments to immediately review the status of data collection and address/clarify doubts therein. The sensitization meeting would be convened at an early date by IGF, PE.

Agenda-2: Avoiding accidents due to Railway and electric lines passing through elephant habitats

The IGF & Director, PE provided the details on elephant deaths attributed to Railway and electric lines in the country for the past five years pertaining to the period 2016-17 to 2020-21. He mentioned that the threat facing elephants due to both Railway lines and the power transmission lines continues to be serious and that the PE Division along with the States and other agencies had been trying to mitigate the impact through range of interventions. He mentioned about the efforts of the Elephant Cell, WII in this matter.

Dr. Bilal Habib, Associate Nodal Officer of the Elephant Cell, WII mentioned that about 1800 km length of Railway lines pass through elephant habitats in India. He further mentioned that mitigating the impact of roads is relatively easy, while railway impacts would be difficult to address. Dr. Habib mentioned about the optic-fiber cables being currently experimented to detect elephant presence along the Railway lines.

The CPEMC member Shri. D.V.S. Khati enquired on the status of CSIR-CSIO project supported in Rajaji Tiger Reserve during his tenure as CWLW, Uttarakhand. To this, Dr. Habib mentioned that the trails by CSIO in using seismic sensors to detect elephant presence

were quite encouraging. He said, the gap lies in integrating the detection signals by the sensor with that of the Railway signaling system. He further mentioned that WII is working towards experimenting the integration of seismic signals with Railway signaling system.

CWLW, Uttar Pradesh informed about the system of rewarding loco pilots that detect elephants and operate trains carefully in the Dudhwa landscape.

CWLW, Uttarakhand mentioned that there are several videos of loco pilots slowing down and recording elephants while operating trains in the Rajaji landscape of the state. The CWLW, Uttarakhand further mentioned that Railways should be made active partners for implementing long-term mitigation strategies and that being in loggerheads with the Railways may not work.

The CPEMC member Dr. Pramod mentioned that Tamil Nadu Forest Department has embarked on a variety of strategies aimed at detecting elephants in the Railway line passing between Coimbatore and Palakkad.

The Chairman of the committee mentioned about the on-going efforts to revise the linear infrastructure guidelines prepared by WII. He further mentioned that after careful state-specific deliberations, advisories can be issued to the Railways.

Agenda-3: Setting-up Early Warning Systems at high HEC hotspots to reduce human deaths and injury due to elephant attacks

As a sequel of agenda-2, the IGF-PE mentioned that optic fiber cable is being experimented in detecting elephant movement. Dr. Bilal Habib mentioned that the OFC would be the best bet in detecting elephants considering its overall durability. He mentioned that in near future it would be possible to detect elephants and avoid collisions with trains by strategically implementing optic-fiber cables.

The Chairman of the committee Dr. S.P. Yadav mentioned that the experiments concerning detection of elephants using optic-fibre cables need to be expedited and that the Railway line passing through Rajaji Tiger Reserve in Uttarakhand would be a good site for conducting the experiment.

The CPEMC member Shri. Surendra Kumar, former CWLW, Kerala mentioned that conducting experiments in multiple sites instead of just one site would be beneficial. He suggested conducting experiments in Wayanad region of Kerala where conflict between elephants and people is high.

The Chairman of the committee agreed to the suggestion of conducting experiments in two sites – one in Rajaji tiger reserve and the other in Wayanad region of Kerala. The Chairman also sought the support of CWLW, Uttarakhand for facilitating experiments in Rajaji Tiger Reserve. The CWLW, Uttarakhand assured support for the same.

Agenda-4: Best practices on preventing human–elephant conflict

The Member Convener of the committee IGF & Director, PE Shri. Ramesh Kumar Pandey elaborated on the human elephant conflict in India. He mentioned that over 500 human lives and 100 elephant lives are annually lost due to human–elephant conflict. He reiterated the need to document and share the best practices on HEC widely so that there is cross-landscape learning and we can learn from mutual experiences instead of proverbial reinventing the wheel.

The IGF PE mentioned about recent novel initiatives taken up by the State Forest Departments such as development of a mobile-app by Odisha to disseminate information on elephant presence widely. On similar lines Karnataka has also come up with a web portal to track elephant movement and broadcast information widely.

CWLW, Kerala mentioned that in spite of numerous efforts by the states in mitigating HEC, the phenomenon of dynamic elephant behavior poses a major challenge for the management.

CWLW, Uttarakhand mentioned that alternative cropping strategies in high conflict villages need to be taken up by roping in ICAR.

Chairman mentioned about successful conflict resolution model advanced in Surguja, Chhattisgarh involving local people. The CPEMC member Shri. K.K. Bisen, retired CCF, who pioneered the conflict resolution efforts in Surguja mentioned that developing mutual trust with local communities lies at the heart of successful conflict resolution. He further mentioned that reducing the response time in the event of conflict would go a long way in improving the mutual trust. Shri. Bisen also elaborated on efforts like temporary fences and radio collaring that helped in mitigating conflict in Surguja. He further called for active collaboration between field managers, veterinarians and scientists to better handle conflict situations.

APCCF (Wildlife), Chhattisgarh mentioned that efforts like SAJAN, an app to track and alert about elephants, and development of novel hooter system were quite useful in mitigating conflict in Chhattisgarh. APCCF (Wildlife), West Bengal mentioned that the conflict scenario is quite different between South Bengal and North Bengal in the state of West Bengal and elaborated on the suite of strategies to mitigate conflict in the state. Dr. Prajna Panda suggested that IITs in the country should be actively engaged with to advance technology related conflict mitigation strategies.

The Chairman summarized the discussions and mentioned that there is a pressing need to compile best practices and also visit areas where such best practices are being followed so that the same can be documented to build capsule courses for training others. He suggested that Project Elephant along with the Elephant Cell of WII takes lead in this regard. He mentioned that capacity building programs should highlight such time-tested and well documented best

practices from across the country.

Agenda-5: A review on mitigation measures adopted by the States of Kerala and Tamil Nadu and action taken on the report submitted by CPEMC to reduce elephant deaths due to train hits in the Coimbatore to Palakkad railway track

In response to the directives of the Hon'ble National Green Tribunal (NGT), Southern Bench, a sub-committee of CPEMC visited Railway tracks (Madukkarai to Palakkad) to the review the steps taken by the Railways and Forest Department to contain the mortality of elephants on railway track in Kerala and Tamil Nadu.

The report submitted by the committee has been forwarded to state of Kerala, Tamil Nadu and southern Railway.

Dr. Bilal Habib, as a member of the committee that visited the site elaborated that the problem can be effectively addressed as there are only a few vulnerable sections that could be guarded by preventing elephant movement in such sections. He further mentioned that preventing elephant movement in such sections would help reduce conflict as well.

The CWLW Kerala mentioned that the Government of Kerala has already taking various measures to prevent elephant getting killed in the above mentioned railway lines. Dr. Pramod, Member of CPEMC mentioned that government of Tamil Nadu is also implementing Artificial Intelligent (AI) system installing the automated cameras to monitor the elephant movements so as to prevent the deaths of elephants due to train hits.

In this regard, it is decided that the Southern railway and the Government of Kerala and Tamil Nadu will submit the detailed action taken report to this Ministry.

Agenda-6: Field visit to Assam during the November to December to review the HEC situation in the state

In Original Application No. 246/2018 Pradip Kumar Bhuyan & Ors vs Union of India & Ors regarding deaths of elephants due to various reason, the Hon'ble NGT has ordered that "Central Monitoring Committee has been constituted by the MoEF&CC which coordinates with the concerned elephant bearing States on issues relating to safety of elephants". In this connection, it is envisaged that there is a proper assessment of the situation in Assam by CPEMC members. The Chairman invited volunteers from the Committee that would be keen to be part of the field visits to assess the situation in consultation with Assam Forest Department. The volunteers identified during the meeting included Shri. Surendra Kumar, PCCF (retd), Kerala, Dr. Anamitra Anurag, WWF-India and Dr. P. Pramod, Senior Principal Scientist, SACON, Tamil Nadu.

Case study on human–elephant conflict in Anaiyirangal, Idukki District, Kerala by CPEMC member and PCCF (retd). Shri. Surendra Kumar

The CPEMC member Shri. Surendra Kumar presented a case study on HEC in Anaiyirangal / Chinnakanal in Central Kerala. The Anaiyirangal area supports a small population of about 20 – 25 elephants that is pocketed in a very small area causing huge conflict. The elephants occur in the vicinity of the Anaiyirangal Dam during 1962. Conflict has been acute and development around the habitat has isolated the elephant population, which is stranded in a small area and unable to move without intervention. The land around habitat has been assigned to 559 families. One possible option is to restore connectivity through Mathikettan Shola NP and then on to Dewaram hills in Tamil Nadu. The other option is to restore the habitat connectivity between Anaiyirangal and Eravikulam National Park. Once this connectivity is restored, then the elephants would be able to access a very large area that includes Anamalai and Parambikulam Tiger Reserves of Kerala and Tamil Nadu.

The State of Kerala may comment on the above matter and submit the details for the discussion in the next meeting of CPEMC.

Decisions taken during the meeting

- Project Elephant would convene a meeting with WII and the State/UTs Forest Departments to immediately review the status of All-India synchronized elephant and tiger population estimation of 2022.
- Piloting the Optic Fiber Cable (OFC) experiments in two sites – one in Rajaji Tiger Reserve and the other in Wayanad region of Kerala would be taken up by Project Elephant soon.
- Project Elephant along with the Elephant Cell of WII would continue to document the best practices adopted by State Forest Department for preventing human–elephant conflict and include them in developing capsule courses used for capacity building programs.
- Southern railway and the Government of Kerala and Tamil Nadu will submit the detailed action taken report to this Ministry on the report submitted by CPEMC to reduce elephant deaths due to train hits in the Coimbatore to Palakkad railway track.
- Field Visit will be undertaken to the State of Assam during the months of October /November to assess the status of human–elephant conflict and suggest the mitigation measures. For carrying out field visits, voluntary nominations by the CPEMC have been made.
- The State of Kerala will look in to the issues related human–elephant conflict in Anaiyirangal, Idukki District, Kerala and provide comments to take up the matter in the next CPEMC meeting.

The meeting ended with thanks to the Chairman, ADG (NTCA) Dr. Satya Prakash Yadav and Members of the committee.

List of attendees

1. Shri. Chandra Prakash Goyal, DGF & SS, MoEF&CC
2. Dr. Satya Prakash Yadav, ADG (PT), MS (NTCA), MoEF&CC and Director, WII. Chairman,

CPEMC & CEHWC

3. Shri. Ramesh Kumar Pandey, IGF & Director, Project Elephant, MoEF&CC and Member Convener of CPEMC & CEHWC
4. Shri. Ganga Singh, PCCF & CWLW, Kerala
5. Dr. Samir Sinha, PCCF & CWLW, Uttarakhand
6. Dr. Kesheo Prasad Dubey, PCCF & CWLW, Uttar Pradesh
7. Shri. Rajesh Kumar, APCCF (Wildlife), West Bengal
8. Shri. Surendra Kumar, Member – CPEMC and PCCF (retd), Kerala
9. Shri. Digvijay Singh Khati, Member – CPEMC and PCCF (retd), Uttarakhand
10. Shri. Kishor Kumar Bisen, Member – CPEMC and CCF (retd), Chhattisgarh
11. Dr. P. Pramod, Member – CPEMC and Senior Principal Scientist, SACON
12. Dr. Anamitra Anurag, Member – CPEMC and WWF-India, West Bengal
13. Dr. Amit Malik, IGF (NTCA), MoEF&CC
14. Dr. E.K. Easwaran, Member – CEHWC & Retired Veterinary Officer, Kerala
15. Dr. Devendra Podhade, Member – CEHWC & Assistant Professor, School of Wildlife Forensic and Health, Nanaji Deshmukh Veterinary Science University, Jabalpur, Madhya Pradesh
16. Shri. U. Vishnu Prasad, Member – CEHWC and Elephant Owner, Kerala
17. Shri. Shajimon, Member – CEHWC and Mahout, Tamil Nadu
18. Shri. Dwipen Kalita, Member – CEHWC and Mahout, Assam
19. Dr. Parag Nigam, Scientist F, WII
20. Dr. Bilal Habib, Scientist E, WII
21. Dr. Samrat Mondol, Scientist E, WII
22. Dr. K. Muthamizh Selvan, Scientist E, PE Division, MoEF&CC
23. Dr. Prajna Panda, National Coordinator, PE Division, MoEF&CC
24. Dr. Rajendra Kumar, Scientist C, PE Division, MoEF&CC
25. Shri. Pankaj Kumar Sangwan, Deputy Director, Ministry of Power, New Delhi
26. Dr. N. Lakshminarayanan, Project Scientist, WII
27. Shri. Udhaya Raj, GIS Specialist, WII
28. Shri. Kirti Bisht, DEO, PE Division, MoEF&CC
29. Shri. Raju Rawat, DEO, PE Division, MoEF&CC
30. Shri. Vijay, DEO, PE Division, MoEF&CC