

Baseline Survey Report on Human Elephant Conflict at TPCODL Dhenkanal Circle of Odisha

Submitted to

TATA Power Central Odisha Power Distribution limited

Power House Colony, Raj Bhavan Colony,

Bhubaneswar

Odisha - 571008



Submitted By
Support for Network and Extension Help Agency
(SNEHA)
No 38 A-1 Visweshwaranagar,
Industrial Suburb, Mysore
Karnataka - 570008



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Support for Network and Extension Help Agency (SNEHA)

An Organisation dedicated for Community Development

Recognised under : Society Act 1960, IT Act 80G, 12AA and FCR Act 1976

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No. 584 /4F-WL- Dated 02.02.22

To

The Circle Head,
Tata Power Central Odisha Distribution Limited
Dhenkanal Circle,
Angul

Sub - Human-wildlife conflict in Angul Circle

Sir

With reference to your letter dated 31.01.2022 and our discussion held on 28.01.2022, this is to inform you that the 5 Territorial Divisions like Cuttack, Dhenkanal, Athgarh, Angul and Athmalik have maximum human-wildlife conflict beside 2 Wildlife Divisions i.e. Mahanadi Wildlife Division, Nayagarh and Sankosa Wildlife Division, Angul. As per discussion held today with the NGO 'SNEHA' for necessary support on motivation measures, it was desired to take up awareness programme in the highly affected areas wherein our staff have already settled visiting the villages on daily basis to ascertain the problem in a particular village and their alertness on a conflict situation so as to prevent human and animal death. In this regard, the organization may be asked to contact the divisions under this control for getting information relating to wildlife and human conflict death, injury and damages over the years with highly affected villages and Forest Beats so as to focus in these locations. The divisions like Angul, Dhenkanal and Athgarh may be taken up early where there is maximum animal presence and conflict and happened in previous years. The DFCOs are being requested for necessarily follow up on the matter.

Yours faithfully,


Regional Chief Conservator of Forests
Angul Circle

Memo No. 585 /Dated, 02.02.22

Copy forwarded to all Divisional Forest Officers, Angul Circle for information. They are requested to provide the information relating to human-animal conflict and also make arrangement for more meetings with the villagers with the help of the the NGO who have the experience for building better interface with the public and report compliance.


Regional Chief Conservator of Forests

FORWARD

Human-elephant conflict is a major concern in many areas of the country. A variety of management strategies have been developed and are practiced at different scales for preventing and mitigating human-elephant conflict. Expansion of human settlements, development projects, and agricultural fields has resulted in widespread loss of elephant habitat, degraded forage, reduced landscape connectivity, and a significant decline in elephant populations relative to their historical size and overall range. As their habitats shrink, elephants are progressively forced into closer contact with people, resulting in more frequent and severe conflict over space and resources with consequences ranging from crop-raiding to reciprocal loss of life.

The TATA Power Central Odisha Distribution Limited (TPCODL) intends to mitigate for long-term resolution of the human-elephant conflict. By taking this initiative, the TPCODL aims to promote peaceful co-existence requiring focused management efforts on site-specific considerations as well as the formulation. These strategic plans will be applied at the landscape level that directly addresses underlying anthropogenic issues.

Therefore, a need to understand the challenges and opportunities in the Dhenkanal and Angul districts of Odisha the TPCODL has partnered with Support for Network and Extension Help Agency (SNEHA), a non-governmental organisation (NGO) to conduct a baseline survey in these two districts to mitigate the human-elephant conflict.

This report encompasses an overview of Dhenkanal and Angul Districts issues, long and short-term strategies, baseline survey process, and survey findings. This survey will form the base for intervention and implementation of the mitigation strategies. I thank Mr. M. Shenbagam CEO of TPCODL & his Team, TATA Power Sustainability Team, Regional Chief Conservator of Forest-Angul Circle, all Division Forest officers and Divisional officials (Government of Odisha), community members and everyone involved for joining hands to support the survey.

Ramasamy Krishnan
Executive Director
SNEHA NGO

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Section 1

Overview of the Baseline area:

The forest in Odisha state has two kinds: the northeast region, the tropical-moist-deciduous type and the southwest, the tropical-dry-deciduous variety, covering about 52,472 sq km (~33%). This rich forest area supports rich biodiversity and a wide variety of wildlife. The state has declared considerable tracts of land as areas protected for wildlife. These protected areas constitute 10.37% of the total forest area and 4.1% of the state's geographical location. The state also has the distinction of possessing three mass nesting beaches of endangered Olive Ridley Sea Turtles, making it the most significant nesting ground of that species.

On the other hand, the state also has rivers and several mineral deposits such as coal, iron ore etc. Thus, developmental activities such as irrigation canals and mineral, Rail/road development lead to disturbances to the wildlife, and the disturbed habitat of wildlife tends to lead to human-animal conflict.

“Human-wildlife conflict refers to the negative interaction between humans and wild animals, leading to adverse impacts such as injury or loss of human lives, crop, livestock and other properties, or even their emotional well-being, and equally negative impacts on wild animals and or their habitats.”

Section 2

Baseline survey

2.1 Purpose:

The baseline survey was conducted to generate a knowledge base that serves as a roadmap for TPCODL to mitigate the human-animal conflict in the TPCODL Dhenkanal Circle of Odisha.

Map-1 shows the baseline survey area in Odisha state.



2.2 Objectives:

TPOCDL, in association with its Community-based NGO partner SNEHA, conducted this baseline survey to understand the ground reality of issues related to HAC, including the gap that exists between the standard guidelines developed by the Ministry of Environment, Forests and Climate Change (MOEFCC), Government of India and its actual implementation, issues faced by Community, areas of improvement, and necessary support required to address problems facilitating desirable growth and development among the Community.

2.3 Design & Methodology:

The survey was conducted in the Dhenkanal circle of Odisha state. A detailed questionnaire was developed to capture aspects of human-animal conflict associated with various stakeholders (Annexures 1, 2 & 3). For information collection, different tools were engaged, such as focus group discussions and key informant interviews. All stakeholders were apprised of the purpose of the baseline survey, and their consent was sought for data disclosure.

2.4 Team & Duration of Data Collection:

The survey was conducted by a team of three members organized by SNEHA. The team surveyed Dhenkanal Circle from the Third week of Jan to Apr 2022 & ended 2nd week of April 2022.

2.5 Data Processing & Analysis:

The survey team recorded all information in data collection sheets – questionnaires, information sheets, and handwritten notes to capture accurate data and future reference and clarification. A database was created to store the collected data according to categories and informant groups. A summary was drafted by considering indicators based on the questions and focus areas. Quantitative data were processed, analyzed, and organized using Microsoft Excel. Descriptive statistical values were calculated to explain the distribution and general characteristics, including frequency counts, percentage, minimum, and maximum values. Qualitative information was used to provide a description of and analysis of each focus area and to elaborate on related quantitative data.

Section 3

3.1 Survey Findings

The survey findings have assisted in identifying issues faced by the Community, forest department and other stakeholders, on which one can formulate the actions that could aid in the improvement of each of the issues raised by the stakeholders. The survey touched upon different aspects of stakeholders that will be necessary for sustaining the initiatives. The survey also considered various stakeholders' recommendations to improve the situation on mitigating HAC.

3.2 Stakeholders' involvement in the survey

To begin with, the SNEHA has interacted with more than 150 stakeholders belonging to 22 Grama Panchayats in Dhenkanal Circle. In addition, the survey team has conducted several Focus Group Discussions with different stakeholders in the circle.

3.3 Elephant Mortality Details:

Since 2010-11, 769 elephants have died in the state, 46 were killed by poachers, and 68 were dead using live electric wires. Another 47 elephants died due to Accidental Electrocutation in the form of sagging power lines. Trains killed 25, and speeding vehicles on roads killed 6. The cause of death remains unknown in 144 deaths. Out of 769 deaths in the last ten years, 36% died of unnatural deaths, and 20% died due to non-ascertained causes, mainly because the bodies

Map-2 The Elephant Deaths due to Electrocutation in the study area.

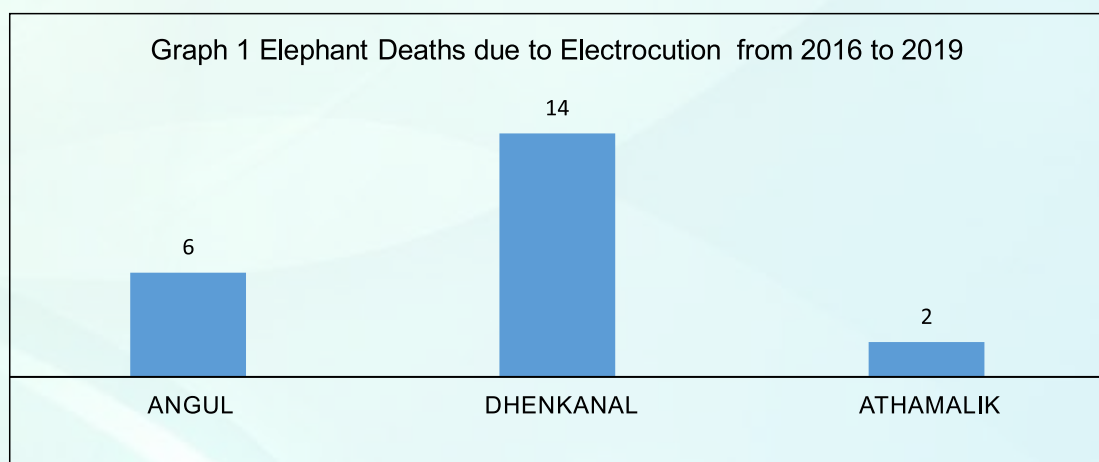


were found highly decomposed. Nearly 50% of all the elephants that die in Odisha do so for reasons other than natural causes:

(Details Of Elephant causality due to Electrocutation in Odisha Data source- Odisha Forest department.)

Electric-wire-trap poaching is another significant concern, and many elephants have died in Dhenkanal Circle. Before TPCODL took charge of the distribution, several forest regions had naked overhead 11-KV and 33-KV power lines. However, the vulnerable areas have been identified, and TPCODL started installing insulated wires in a phased manner.

From 2016 to 2019, 22 elephants died only due to Electrocutation in TPCODL Dhenkanal Circle, not Satkosia Division.



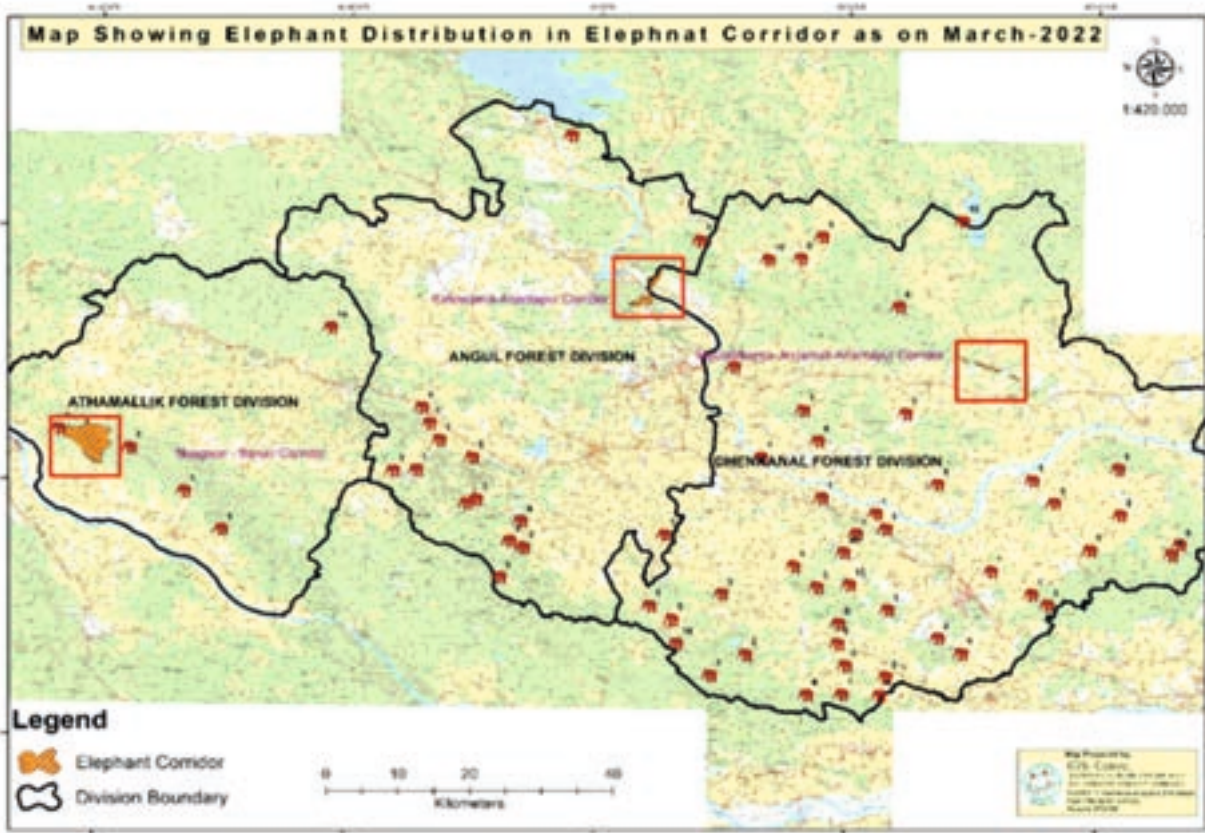
3.4 Fragmentation of Habitat and Corridors:

Maulabhamja Jiri Damali-Anantapur, Dhenkanal, Kahneijena- Anantapur, both Inter-District in Angul, Nuagaon- Baruni, are the essential existing corridors in the Angul forest circle, which cover the extended area of 28.23 Sq. Kms. Among the activities that create habitat fragmentation are Irrigation projects, Rail / Road construction and mineral exploitation activities. For instance, the construction of the Talcher-Sambalapur railway line, irrigational canals, mining and felling of trees have led to the fragmentation of elephant habitat in this area and increased human-elephant conflict. Furthermore, encroachment by communities has also affected the habitat.

Map-3: The elephant corridors in TPCODL Dhenkanal Circle.



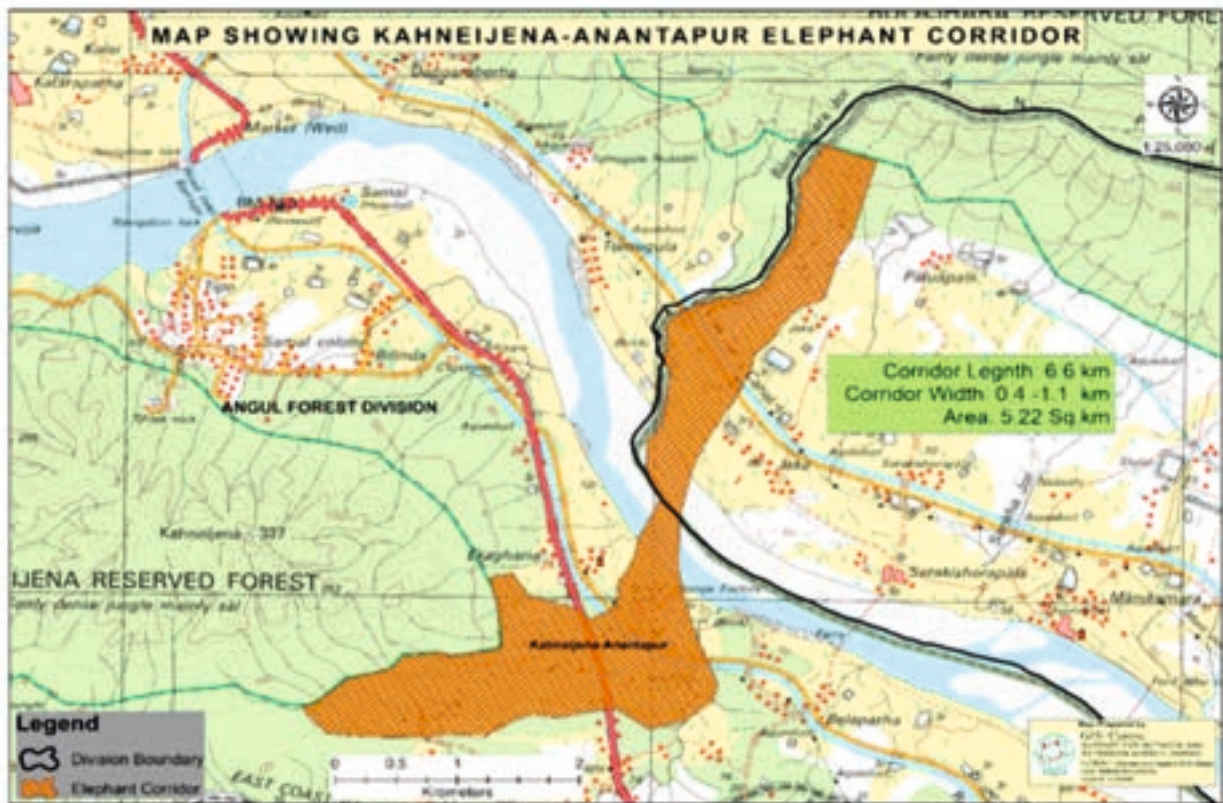
Map-4: The Elephant Distribution in the study area, movement near the corridor, and connectivity between the patch forest.
 The below-mentioned elephant Distribution is as of March 2022.



Map-5: The Maulabhamja-Jiri Damali-Anantapur corridor connectivity between the patch forest.



Map-6: The Kahnejena - Anantapur corridor connectivity between the river banks.



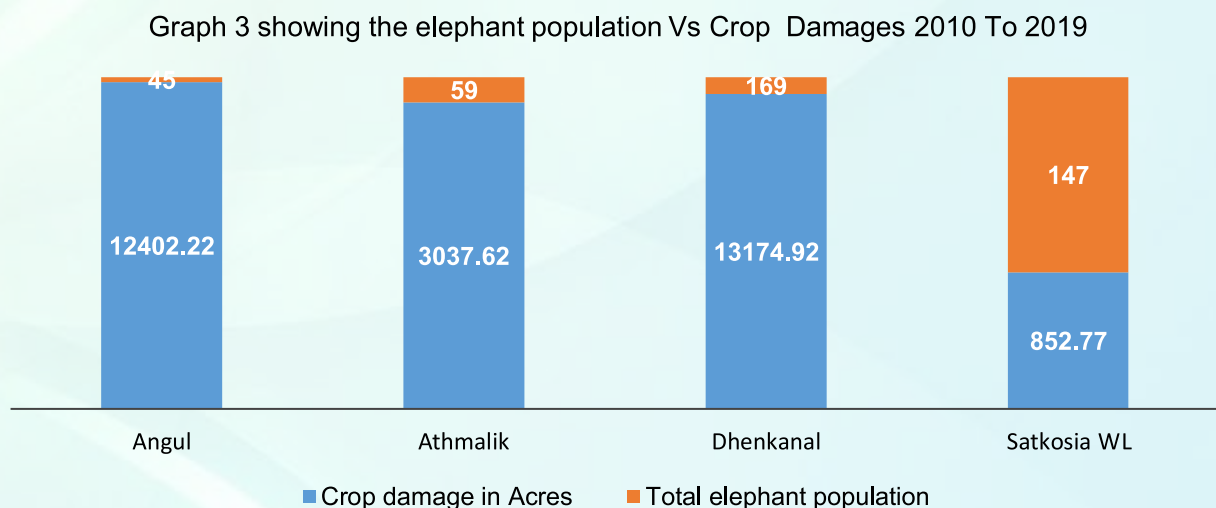
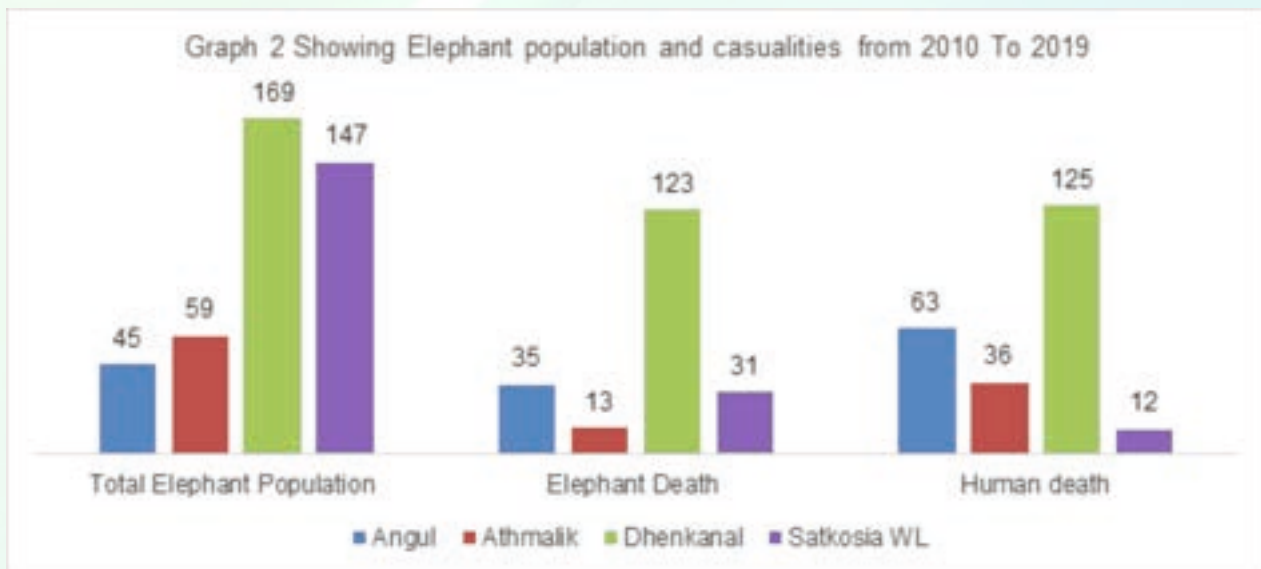
Map-7: The Nuagaon – Baruni corridor connectivity.



3.5 Human-Animal Conflict:

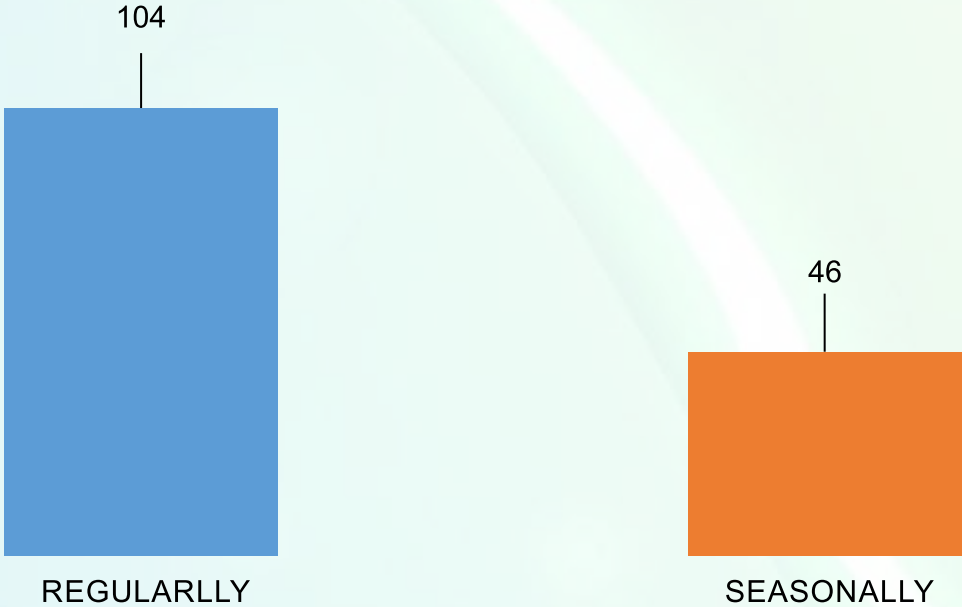
Information gathered during the survey indicates that the HEC became an issue in the last decade, and the elephants are coming towards villages and having conflict. It has forced the villagers to spend about 80 to 120 days a year keeping a watch for elephant raids during the nighttime. The Community suggested that some trustworthy Early Warning Systems (EWS) about herd movement given to them would be instrumental, for instance, alarm sirens or SMS. It would help prepare better and reduce the loss of life or injuries.

With the fragmentation of habitat and modifications, in the corridors of elephant movement, due to various anthropogenic activities, elephants were forced and also preferred to feed on the crops cultivated by the communities close to their habitat, for instance, paddy from September to March Kharif months and vegetable in rabi seasons. The crop-raiding is a significant economic loss to the farming community. To safeguard their crops, the farming community has adopted several measures, ranging from crackers to fires to solar electric fencing, at times, illegally, with higher voltage power and leading to the death of elephants. On the other hand, a few anti-social elements have tried to kill wild animals, such as wild pigs, to protect their crops and commercial interests by making illegal electrical traps. There have been several instances of fatal and non-fatal accidents to humans, and the seriousness of the situation is given below:

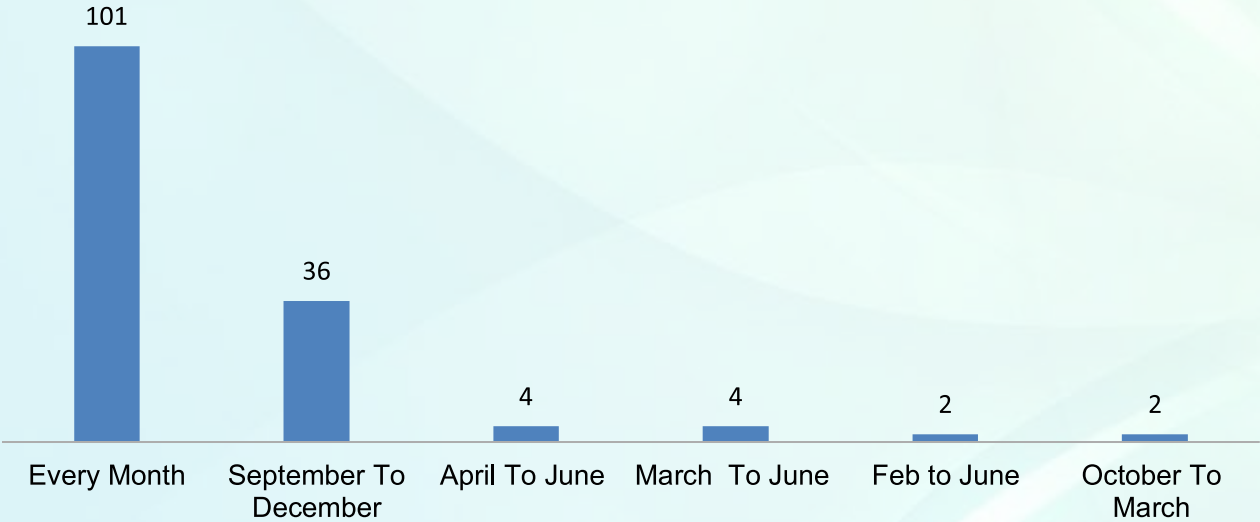


The graphs show that the wildlife-related economic losses are significant in the Angul and Dhenkanal forest ranges. More than 28000 acres of crop damage have been recorded in the past few years, and compensation is paid to the farmers. Though the compensation is paid to the farmers, the friction is increasing over the years between the department and the Community due to slow processing, long time to get compensation etc. During the primary survey, the community's opinion about the co-existence with wildlife is enquired. A majority of the Community has expressed it is peaceful coexistence that the Community wants. Regarding the compensation payment, the farming community has strong reservations about the process and wants the compensation process to be simpler and quicker in terms of payment. Also, they suggested that the forest department consider the option of Elephant Proof Trenches (EPT) for safeguarding the crops.

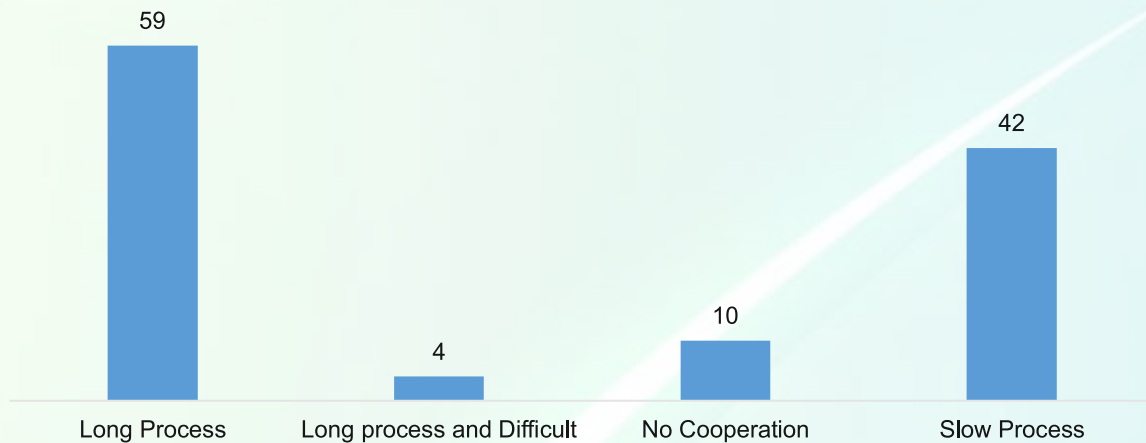
Graph-4 Elephant movement in the village



Graph-5 Elephant Movement Seasons



Graph-6 Compensation process



The survey indicates that the HEC is increasing as an overlapping niche of humans and wildlife. This overlapping is increasing due to several factors such as fragmentation of forests and loss of habitat, declining capacity to support the wildlife within the forest, expansion of the grazing, cropping pattern etc. In addition, the interaction with various stakeholders indicates that the following issues are pretty significant, as described below:

Social issue: In a society based on a subsistence economy like in remote villages of Dhenkanal and Angul districts, the threat of crop damage due to elephant raids is significant. This vulnerability creates a vacuum and thus prevents individual households or communities from expanding livelihood options.

Life loss/ Physical harm: There have been several instances wherein the conflict with elephants resulted in fatal or non-fatal but long-lasting physical damage to the individuals. Though the Government is providing compensation as per norms, the damage to the family remains.

Property Damage: There have been several instances wherein the elephants have partially or entirely damaged the houses. Also, the elephants damage the grain storage building in the villages during the post-harvest season.

Crop Loss: Elephants raid paddy fields as the crop are near the harvest stage, and the farmers are forced to take measures to protect their crops, but with limited success. The compensation process for crop loss is online, but not all farmers are familiar with it. In addition, the farmers have indicated that the existing measures implemented at their own cost are not **sustainable, and maintenance costs are incurred annually.**

Ecological Impacts: The elephant is an integral of the forest ecosystem in the forests, and the conflicts are bound to have an environmental impact on the elephant population. Also, on the diversity of the forest as well. HEC results in fatal accidents and may kill more than one animal in an accident. Elephants have a structured social life, and the death of an individual member of the herd is likely to impact the entire herd. The end of a Tusker may result in a sexual imbalance in a herd, and similarly, the death of a mother elephant may lead to the death of orphaned baby elephants. Therefore, a robust integrated approach is required for the mitigation of HAC.

Department / Stakeholder	Concerns expressed
Forest Department of Odisha	<ul style="list-style-type: none"> ● The habitat disturbances that are creating HEC ● The intensity of HEC is significant in a few villages ● A few individuals in the village (between 25 to 40) are involved in electric theft for poaching wildlife. ● Lack of Awareness of HEC ● Limited livelihood opportunities ● Lack of Public-private partnership ● Lack of technical /expertise support to mitigate the HEC ● Inadequate training for frontline staff ● Inefficient early warning systems to reduce HEC
District Administration	<ul style="list-style-type: none"> ● Poor Community participation ● Lack of convergence on Livelihood diversification ● Lack of Public-private partnership ● Lack of technical /expertise support to mitigate the HEC ● Inadequate training for frontline staff ● Inefficient early warning systems to reduce HEC
TPCODL	<ul style="list-style-type: none"> ● The problem of illegal electrical connections ● Inadequate coordination with the forest department in case of herd movement to avoid accidents ● Multi stakeholders' engagement needs to enhance ● The Community does not appreciate more prolonged disruptions in the power supply ● Tempering insulated wires ● Convergence of different development departments to be enhanced (awareness, livelihood diversification, community-based management, forest department and district administration collaboration)
Community	<ul style="list-style-type: none"> ● The crop compensation is not to the market price ● Getting compensation/ex gratia is a long process ● Lack of mitigating measures (EPT, Solar Power fence etc.) ● Lack of early warning systems ● Poor support from RRT ● The department supports are compartmentalized ● Inadequate support from Grama Panchayath ● Poor awareness of mitigating HEC ● Lack of irrigation system ● Required livelihood programs

Recommendations:

Short-term mitigation measures:

1. District level orientation on HAC
2. Support establishing an Early Warning System to avoid Human causality
3. Early Warning System for crop protection
4. Construction/Installing of Barriers
5. Radio Collar for selective animals and documenting their movement
6. Capacity building for Rapid Response team and Front-line staff of Forest Department
7. Awareness-raising activities
8. Establishing a forum for Effective dispute resolution Mechanism between forest dept/community and other stakeholders.

Long term Mitigation measures:

1. District level orientation on HAC
2. Handholding support to Grama Panchayats to develop an effective GPDP and implementation.
3. Convergence of other Department/Stakeholders
4. Awareness and Sensitization Programs to –
 - a. Community-based organizations
 - b. Children–Anganwadi and school
5. Facilitating Elephant protection measures: (Trenches (EPT)- 3 x 3x 1 meter top, depth and bottom, Solar Fencing under MGNREGA)
6. Adoption of MoEFCC guidelines
7. Establishing a forum of Effective dispute resolution Mechanism between forest dept and Community.

Section 4

Conclusion

The baseline survey revealed that the community faces several crop damage issues. Every conflict impacts all the concerned, with some having to bear the severe implications for longer while others, with luck, are less painful and for a shorter period. The impacts manifest in different manners.

* * * * *

Section 5

About SNEHA:

SNEHA is an organisation dedicated and committed to providing extended support to empower the poor, networking among development agencies working with similar objectives. The organisation was started in 1999, working in backward areas of Mysore, Chamarajanagar, Ramanagaram and Bangalore districts. SNEHA empowers communities and improves natural resource management, education, and water and sanitation facilities. SNEHA's mission and objectives can be found at www.sneha-ngo.org

- SNEHA actively collaborates with the forest department to reduce human-wildlife conflict in Kodagu District in Karnataka.
- SNEHA associated with the watershed programmes and implemented Soil and water conservation activities covering about 8000 hectares with 5000 families in Gundalpet from 2011 to 2014.
- Project “State Level Advocacy on WASH in Institutions, in Karnataka” supported by UNICEF 2018-19
- Sanitation Programmes with financial support from Zilla Panchayath, Davangere 2014 to 17
- School Sanitation & Hygiene project in Ramanagaram District from 2015 to 2020, supported by TOYOTA covered about 60,000 children in 1000 schools on behaviour change activities using WASH facilities.
- We partner with ITC and work on Solid Waste Management in three taluks of Mysore District and WASH activities in schools and Anganwadi centres in the factory catchment area.
- In the wake of the COVID 2nd wave response, SNEHA, in partnership with UNICEF, plans to reach out to 30,000 households from 130 GPs to promote COVID appropriate and WASH behaviours and build the capacities of local committees and strengthen systems to contain the COVID pandemic.

Section 6: Photos Gallery

Meeting with the forest officials



Meeting with the Community



Meeting with Farmers and SHG members



Interaction with the School children and Teachers



Annexures

Annexure 1

Data Sheet for quantifying the Stress level of the worker/employee

1. Name:
2. Married/Single: Children:
3. Village Name: GP Name:
4. Coordinate Lat.....Long.....
5. How long staying in the village:
6. How long have you seen elephants in this area:
7. What do you feel when you see an elephant?
Life-threatening /Leaving the workplace/staying out & coming for work/ least concerned?
8. Have you or your family member encountered an elephant: **yes / No**
9. Personally, affected with any disease because of an elephant? If so, specify.....
10. Amount spent for the medical Rs.....
11. What do you think when you see an elephant close to your house?
chase/ hurt/kill/least concerned
12. Whether your earning dwindles because of an elephant: **Yes/ No** If yes! Rs.....
13. If the elephant is noticed in your area: **willing to work /Come back home/ work for only salary/?**
14. If elephants are allowed free access in your village surrounding forever, do you feel they will stop damaging the crops?
YES..... No.....
15. Also do you feel the elephant population will go up in future if food is available on the property?
YES..... No.....
16. An increase in numbers will cause damage /accidents, and the area of elephant occupancy will increase?
YES..... No.....
17. How much is your or your children's life worth in terms of compensation?
2Lakhs/5 Lakhs /10 Lakhs /15 lakhs
18. If adequate compensation is given, will you object to elephants attacking?
YES..... No.....
19. In such a scenario, will the burden of compensation be acceptable or feasible for the government?
20. If you think it is feasible, why are you not getting it?
Process failure/lack of knowledge/need assistance/others
21. Does the compensation take away the fear of the elephant attack or death?
22. Are elephants coming seasonally or regularly?
23. If the regular reason for coming:
24. If Seasonal, specify which month:

Annexure 2

SOCIO-ECONOMIC DATASHEET

Date: _____ Name of Respondent: _____
Community: _____ Family Type: Nuclear / Joint Family
Village Name: _____ Lat: _____ Long: _____
Power supply: (Yes/No) _____ Type of House: Concrete/brick/ mud
Roof: concrete/ tiled /thatched /asbestos / tin

1. FAMILY, EDUCATION AND INCOME DETAILS:

S. No	Name	Age	Sex	Edu.	Present work	Income/month

1. EXPENDITURE AND LIFESTYLE MAINTENANCE RANKING

Sector	Monthly cost	Yearly cost
Food		
Cloth		
Education		
Health/medical		
Electronic Goods		
House repairs		
Fuel		
Others		

2. INCOME FROM LIVESTOCK

S. No	Type of livestock	Number				Income Rs/year			
		Hybrid		scrub		Sale of animal	Milk	Dung	Others
		Adult	calf	Adult	calf				
3.1	Cow								
3.2	Bulls								
3.3	Buffalo (female)								
3.4	Buffalo (male)								
3.5	Goat/Sheep								
3.6	Pigs								
3.7	Poultry								
3.8	Dog								

3.9 Why keeping cattle: Free grazing space in the forest? Yes/No – If no, Why?

Where cattle grazed:

- a. Cows: Stall-fed/ Fallow land/ forest edge/ inside forest
- b. Buffalo: Stall-fed/ Fallow land/ forest edge/ inside forest
- c. Goats/sheep: Stall-fed/ Fallow land/ forest edge/ inside forest

3.10 Maximum distance into forest for grazing cattle: Km _____

3.11 Who grazes cattle: no one/ owner / paid person - if paid how much per cattle Rs. _____

3.12 Time of grazing inside the forest: Starting _____ Ending _____ Total Time hrs.: _____

3.13 Involved for fodder collection? (Yes/No)

3.14 Do you lop trees/shrubs to feed cattle (especially goats/sheep)

- d. If yes, Species lopped (name) _____

3.15 Specify vaccination of livestock:

4. CONFLICT WITH LARGE CARNIVORES

4.1 Protection for cattle

- e. While grazing – people accompanying and guarding / other _____ / NO

f. Protection at night

- i. Animals kept in an open pen
- ii. Animals tied in open
- iii. Animals kept in the open shed
- iv. Animals kept in a shed with bamboo/wooden barriers
- v. Animals kept in a shed with a wire mesh barrier
- vi. Animals kept in a walled shed
- vii. Remarks:

- g. Is light used for illuminating the shed at night: describe _____ and what about power source

- h. Are dogs used to guard, and if yes, how useful are they?

- i. Distance to owner's house _____

- j. Has the owner ever heard of an animal being killed and coming out? Yes / No; if yes A) how many times he came out _____ and B) how many times he failed to hear sound _____ Total incidents _____ what were the results _____

4.2 Cattle Deaths

Year	Livestock type	Age class	Shed/grazing	Carnivore involved	Compensation		Remarks
					Claimed (Y/N)	Amt received Rs	

5. INCOME FROM AGRICULTURE

Landholding total (acre):

4.1 Own land: Dry _____ Wet land _____

4.2 Leased Land: Dry _____ Wet land _____

Name of crop	Growing season		Extent of crop (acres)	Avg. Yield/acre	Cost of growing (Rs)	Sale value (Rs)	Net income (Rs)	% Produce used for sale	Remarks
	Sowing	Harvest							

6. CROP PROTECTION

A) Government supplied

i) Elephant proof trench (functioning/not functioning)

ii) Electric fence (functioning/not functioning)

B) Own protection

Types of protection	Sub-types	Manpower/ work days to build	Costs Rs.	Effectiveness % Success	Why successful or unsuccessful
Fences	Electric fence				
	Barbed wire				
	Wooden/bamboo				
	Hedge				
Guarding	Machan				
	Ground shed				
	House		----		
How many people are involved in guarding per night?					
How many days per year are spent guarding at night?					
Is guarding complete night observation in the field or based on noise:					
Is a warning/tripping device used to wake them:					
Does night guard affect health?					
Does night guarding affect family life?					
Other costs of guarding	Torch/Batteries Rs.	Firecrackers Rs.	Other costs specify: Rs.		
Driving	Family				
	Community				
	With Forest dept.				

7. CROP RAIDING

Crop	Seasonal /Through the year		Frequency of raiding per/year		Species raiding % Of damage					Loss Rs.	
	Elephant	all other spp	elephants	all other spp	Elep	Gaur	Deer	Monkey	Pig	Elephants	other spp

Remarks on table 7:

7.1 If crop raiding by elephants – raiding done by

7.2 Herds/ Bulls / both herds and bulls/do not know

7.3 What proportion (%) of damage is done by bulls? _____%

7.4 Compensations

7.5 Have you claimed compensation? If not, why?

7.6 For which animal species?

7.7 How much was claimed? Rs.

7.8 How much compensation did you get Rs: _____ (case pending)

7.9 Is the compensation process difficult or easy? _____. If difficult, what are the main problems

7.10 What would you like changed in the compensation claim process _____

8. OTHER FOREST-BASED RESOURCES OR INCOME SOURCES

Non-Timber Forest Products (NTFPs COLLECTIONS)

NTFPs	How many people were involved in the collection	Season (Month)	Total collection Kg	Rate/Kg	Remarks

8.1. What vegetable foods are sourced from the forest, and who collects them? Yes / No

8.2 What foods collected _____

8.3 If yes, how much of your diet comes from it (seasons and number of days) _____

9. FUEL WOOD (Yes/No)

- Collected for self /selling
- If buying, how many rupees per head load?
- If own; where do you collect (Forest/ Other areas)
- Distance from house km _____?

- ☐ How many persons are involved in fuel wood collection in the family?
- ☐ How many trips per week or specific days, s if not weekly, for collecting wood?
- ☐ How much fuel is wood (kgs) used per day?
- ☐ Is there any small timber/bamboo collection for houses/agriculture/Other uses?

10. PROPERTY DAMAGE AND THREAT TO HUMANS

Property damage

	Species involved	Type of damage	Cost of damage	Compensation Rs	Remarks
House					
Shed					
Vehicle					
Why damage the house – to get something to eat/ chase people/ accidental/other					
Type of protection, if any:					
Cost of protection:					

10.1 What do they feel about property damage – especially house:

10.2 Threat to human life

Age/sex of the person	Death/ injury (type)	Animal responsible	Compensation Y/N	Remarks
Was anyone chased/attacked by wildlife:				
Was it a close escape; very dangerous/ dangerous/ only mild charge/ threat display				
Which animal:				
Why was it chased? Went too close (did not see)/ surprise interaction/ dark/ other				
Over what distance it chased				
How person escaped: went into safe place/outran the animal/others chased it away/other reason				

11. What are the main species which pose a danger to you-family life _____

12. Any particular threats to children – while playing, going to school

13 Are your family movements restricted in any way by wildlife – Day Yes/ No;

Night Yes/No

Comments/views on dangers of animals

Overall remarks:

Datasheet Filled by:

Signature:

Date:

