



# Saving Life by Risking Life: Work and Life of Elephant Watchers in the Western Ghats: Kerala

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**Abstract:** Human-animal conflicts have emerged as one of the most contentious problems in the hills of the Wayanad district, Kerala. Elephant watchers were recruited from native tribal communities who have exhaustive knowledge about the landscape, forests and animal behaviours; they keep wild animals at a distance and quickly address the human-animal conflict issues. The current research paper briefly analyses elephant watchers' lives and prospects and concisely discusses a case study on the subject. The lives and livelihoods of communities relying on forests and forest fringes are severely disturbed by the ever-increasing Human-Animal Conflicts. Elephant watchers protect humans and their belongings in forest fringe villages throughout the day and even at night. They undertake dangerous jobs involving a high level of risk, but they remain a group of poorly paid, under-equipped, untrained and often demotivated workers. The forest department, the three-tier Panchayati Raj systems and the district administrations must collaborate to resolve these concerns of elephant watchers. Despite knowing the risks, most elephant watchers have a passion for wildlife and its conservation.

**Keywords:** Human-animal conflicts, Elephant-watchers, Forest fringe villages, Thirunelli, Agrarian society.

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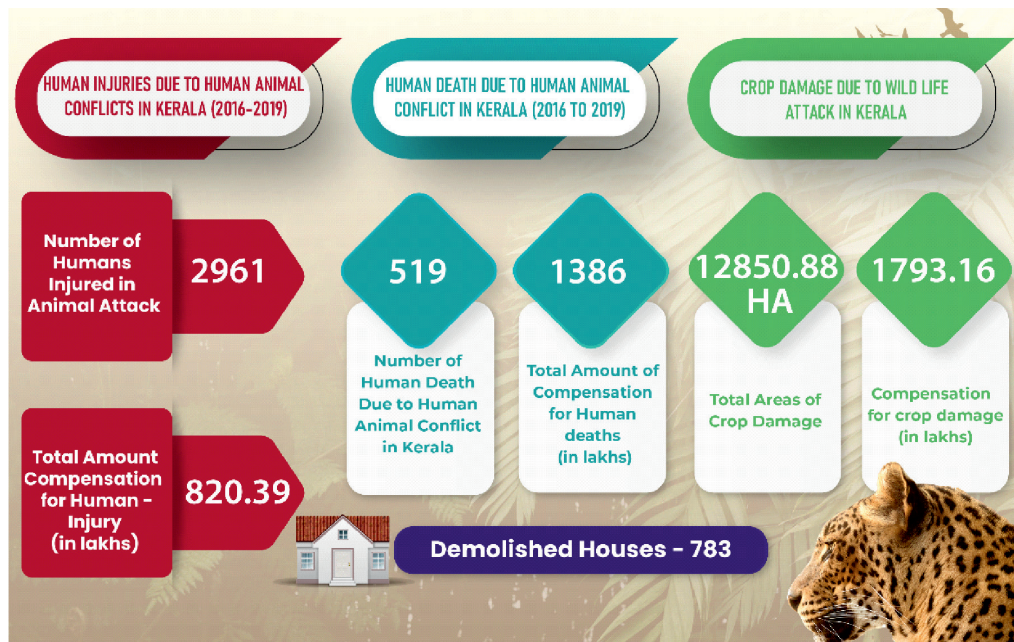
## **Human-Animal conflicts**

Human-animal conflicts occur when the needs and behaviour of wildlife negatively affect human goals or when human goals adversely affect wildlife needs. Such conflicts occur when wildlife destroys crops and injures or kills domestic animals or humans (Madden, 2004). Carnivores, Herbivores,

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Mammals and Reptiles, such as elephants, leopards, tigers, sloth bears, wild boars, monkeys, snakes, and deer, are involved in the human-animal conflicts in Kerala. Elephants are the most dangerous animals engaged in conflict with humans. They cause extreme damage to humans in all manners, including human deaths, limitless injuries, damage to numerous livestock and destruction of a massive volume of properties (Mahanti & Kumar, 2017).



**Figure 1: Human-Animal Conflict Status of Kerala (2016-2019)**

Source: Kerala Legislative Assembly Records, 2019

Source of image: Own creation

## The Situation of Wayanad

Wayanad is a mountainous area under the Western Ghats chain, and the mountains are over 7,000 feet high and are located in the northern part of Kerala state. A significant portion comes under the Nilgiri Biosphere Reserve. According to the 2017 assessment, the district holds dense forests (191 sq. km), modest forests (1219 sq. km), open forests (170 sq. km) and non-forests (550 sq. km) (Kerala Forest Statistics, 2018). Situated at the southern tip of the Deccan plateau, Wayanad district covers a total area of 2,131 km<sup>2</sup> and is dominated by the Western Ghats Mountain range. It shares boundaries with Tamil Nadu and Karnataka in the east, the Coorg district of Karnataka in the north, the

Malappuram district in the South, and Kozhikode and Kannur districts in the west. The economy of the district is entirely dependent on agriculture (Guillerme *et al.*, 2011). It has a total population of 817,420 (415,736 females and 401,684 males) with a total of 190,894 households. The population density of Wayanad is 384 per km<sup>2</sup> (Census, 2011).

Wayanad has a long history of struggles and dauntless stories. But, in current years, Wayanad has become the epicentre of human-animal conflicts in the State. The wildlife species have established their territories in many villages and even towns of Wayanad district in the last two decades. Wayanad has become a central region where human-animal conflicts occur unendingly, causing significant losses on both sides. Loss of lives and livelihood due to the conflict between wildlife species and humans is a key social problem in the district.

The uppermost figure of cases reported for crop damages activated by wild animals is in Wayanad, and the number of reported cases was 7329 between 2009 to 2015. No other district in Kerala has such colossal figures. Elephants were the dominant conflict species in the hills of Wayanad (Easa, 1999). The jumbos caused 57.2 per cent of crop damage, and the number of cases registered against elephants is 4048. Wayanad has high percentages of cases recording human deaths that are attributed to elephants (Sengupta *et al.*, 2020). This is the topmost elephant hotspot in Kerala, where elephant interference in human settlements is more frequent. They are accountable for high economic losses, property damages, and the loss of countless unexpected human lives. The crop-ripening months produce extensive human-animal conflicts that accelerate intensely during paddy harvesting season.

### **Concept of Elephant Watchers**

As already mentioned, human-animal conflicts have emerged as one of the most contentious problems in the hills of the Wayanad district. Elephants raid agrarian fields, wreck the livelihood of marginal farmers and occasionally kill or injure people (Munster & Munster, 2012). Elephant watchers are deployed by the forest department in the forest fringe villages to prevent and scare wild animals away, especially elephants from human settlements and agrarian fields. Elephant watchers are recruited from amongst the native tribal communities who have knowledge of the movements of the elephants through their experience and are skilled in understanding the jungle and wild animals. Elephant watchers are put into service only in heavy conflict zones to scare wild animals mostly elephants, without harming them. Many elephants live

outside the forests and come into contact with humans, which can be dangerous for both, humans and elephants. Eventually, these interactions might end in human-elephant conflicts.

Elephant watchers belong to forest-dependent Scheduled Tribes and are among the worst exploited sections of society. The majority of indigenous peoples depend on the forest for their livelihood; they reside in a natural setting and have poor socio-economic conditions. Wayanad has the largest tribal population in Kerala (Issac, 2011), and native tribes still follow their traditional customs and rituals. Forests constitute an integral part of the social life of tribal communities, are home to these people, and they depend entirely on forests for their livelihood (Ahmed, 2011). This paper aims to shed light on elephant watchers' responsibilities, challenges and employment conditions. Scheduled Tribes who depend on the forest are chiefly employed as Elephant watchers. They live in the vicinity of forests, depend on the forests for their food, medicine, and firewood requirements, and collect a wide variety of non-timber forest products (NTFP) for income.

## **Methodology**

The objective of the study was to understand the elephant watchers' responsibilities, challenges and employment conditions. It tried to comprehend the socio-economic conditions of elephant watchers and traced the working circumstances encountered by them. The current research also aimed to examine the nature of the task performed by elephant watchers.

The research adopted a qualitative method. It is an ethnographic case study, and primary data were gathered primarily by the long-term participant observation method. The research setting was selected from the forest-dependent communities who engaged as elephant watchers from the Wayanad district in Kerala State. Research opinions established were followed by the thematic qualitative analysis. Thirunelli Grama Panchayat consists of two revenue villages, Thirunelli and Thrissilery. These two villages, which lay in the lap of the Western Ghats were the focus of the current research.

## **Methods of Data Collection**

The current research comprises both primary and secondary data. Primary data were collected through unstructured interview schedules and participant observations. The responses from the elephant watchers were captured using a digital voice recorder. Prior consent was sought from the respondents to use the device, and secrecy and ethical usage were assured. Participant



observations were most substantial in the current research for capturing primary data.

Participant observation, as an ethnographic method used in longer-duration studies, requires the researcher to be based in the field, engaging with respondents' everyday actions and reflecting on these and their meanings (Ribbens & Edwards, 1998). This approach's most basic research tool was comprehensive regular field notes, supplemented with visual or audio aids, and evidence correctly taken down on notepads. The researcher resided in the fringe villages and engaged with the elephant watchers to learn more about the in-depth nature of the employment situation. Data collected from secondary sources were collected from Government documents, Forest records, Action committee reports, Panchayat documents and various other literature.

### **Data Analysis**

The data collected were mainly composed in the form of narratives. Thematic analysis was used to interpret the data obtained as the interviews were all in Malayalam and were translated into English. Exemplary themes and descriptive data were dragged from the field notes to supplement thematic analyses of the narratives. The names of the primary informants were converted to pseudonyms, and all identifiable information was detached.

### **Selection of Research Area and Sample**

Wayanad district has a diverse political, agrarian and ecological history. It is a prosperous, fertile and pleasant hill district (Munster, 2012). The Western Ghats Mountain range forms a natural boundary to this lowland in the west and Karnataka's Kodagu (Coorg) region in the north. Thus, all major Wayanad rivers drain eastwards to the Deccan and eventually enter the Bay of Bengal (Census, 2011). It is a land of heavenly beauty (Panoor, 1963), and it is one of the most agriculturally productive districts in India (Chand *et al.*, 2009). But in current years, Wayanad has become a central region where human-animal conflicts occur unendingly, causing significant losses on both sides. Loss of lives and livelihood due to the conflict between wildlife species and humans is a key social problem in the district. The current research was carried out in Thrislery and Thirunelli administrative villages, which are positioned on the northeast side of Wayanad district and share boundaries with Karnataka. Mananthavady and Kottiyoor Panchayats are in their West, Karnataka state surrounds them in the east, Karnataka state and Pulpalli Grama Panchayat surround in the North, and Mananthavady Grama Panchayat in the South. Thirunelli and Thrislery

villages are the lands of paddy fields, and the economy is solely based on agriculture.

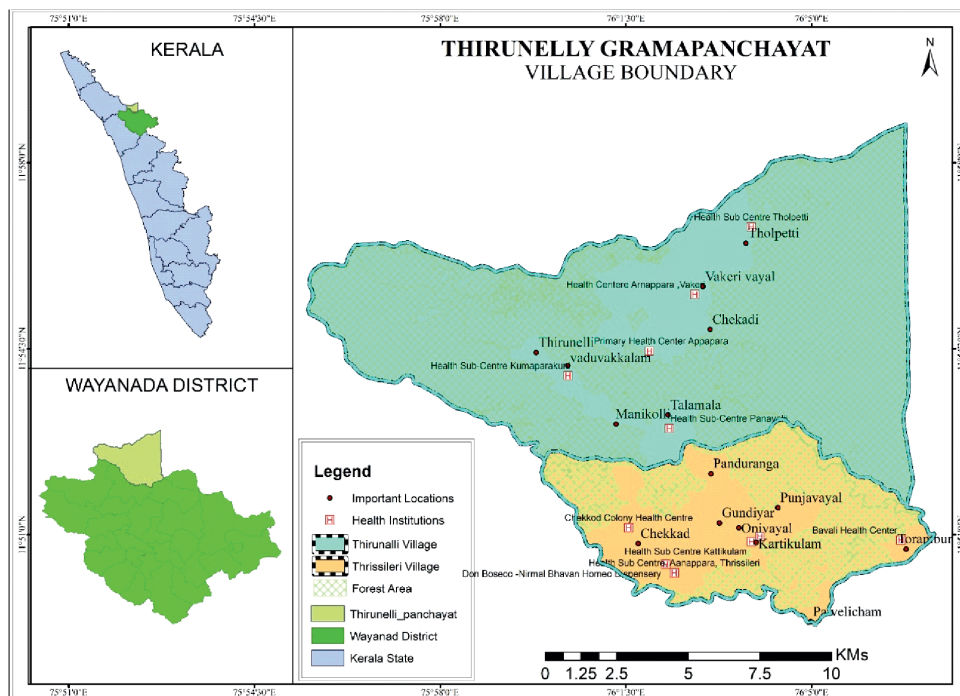


Figure 2: Map of the Research Area

Source: Own Formation

## Elephant Watchers: Duties and Responsibilities - General Outlook

The wild animals that come into contact with humans and their properties need to be managed politely without incurring any damage on either side. There are several methods for reducing and avoiding these conflicts and contacts. The strategies include driving away problematic animals from human settlements, keeping problematic animals apart from humans and livestock, ensuring safe passage and relocating problematic animals. These hazardous operations are carried out by elephant watchers. As discussed earlier, they are recruited from nearby native tribal communities who possess exhaustive knowledge about the landscape, forests and animal behaviours; they keep wild animals at a distance and quickly address the human-animal conflict issues. Elephant watchers were very good at understanding animals' behaviour.

Crop damage is the most frequent form of human-animal conflict in the study area. The destruction caused to the crops generally affects the existence

of the people as the rural livelihoods are shattered. The major animals at the forefront of causing extensive crop damage are elephants, wild boars, various deer and monkey species, wild buffaloes, etc. mainly, the paddy cultivation was affected in earlier times, but now, whatever people cultivate is destroyed by wild animals.

Mr Appu (pseudonym), a 45-year-old, Elephant watcher stated,

*“Nothing is left behind in the farmlands after the animal attacks. Paddy is the most important agricultural crop and the most widely attacked crop by wild animals. Thirunelli has become the centre of the Human-Animal conflict. It is heartbreaking to see the shattered farmlands after the animals recede. The responsibility of an elephant watcher is to protect people’s property and lives in such difficult situations”.*

Wildlife has caused significant damage to physical infrastructure too. Houses, vehicles, water pipes, water tanks, electric fences, makeshift huts, and other properties are often damaged. The damage to numerous types of infrastructure is estimated to have resulted in significant financial losses for the villagers. The animals killed in wild animal attacks are mainly cows, goats, ducks, and pigs. Tigers and leopards mostly attack and slaughter cattle from human settlements. Occasionally, they also attack humans. Tigers focus on hunting down domestic animals that are nurtured in human settlements.

To prevent these conflict situations, the forest department places elephant watchers in fringe villages to also scare off wild animals, particularly elephants, from human habitations and agricultural areas. Elephant watchers guard agrarian fields and prevent wild animals’ attacks in human settlements. They act as crop protectors in the fringe villages and frequently protect the crops and properties by staying in makeshift huts. Crop guarding throughout the day and also at night is their chief mitigation method. They, along with farmers, keep crops under continuous surveillance. They are permanently pressed on duty to observe the entry of wild animals into the agrarian fields, plantations and MGNREGA work areas, and they signal others on seeing any wild animals. They generally check for the presence of wild animals around the adjacent areas by climbing on the highest tree.

Elephant watchers also act as rescue teams and save wild animals in case of injury or accident. They rescue the tigers, deer and other animals that fall into wells or different water sources in human settlements. If a wild boar or any other wild animal is poisoned in human settlement areas, elephant watchers



**Picture 1: Elephant Watchers on Work**

*Source:* Primary Data

bury it after being convinced. With the assistance of the forest department, elephant watchers also set up trap cages to capture tigers and leopards that attack domestic animals in human settlements. The carcasses of the deer or wild boar caught and killed by tigers, leopards or stray dogs are loaded onto vehicles and also buried by the elephant watchers.

In the last three years, 336 deaths and 1860 human injuries occurred due to snake bites in Kerala. The snakes in the human settlements were captured and rescued by these elephant watchers. They respond to all genuine calls and requests informing them about the occurrence of snakes and other wild animals in human habitations and they trap snakes using traditional methods and release them into the deep forests. If the rescued snake is injured, it should be released by the elephant watchers only after sustaining its fitness and health. They frequently set up the basic amenities required for monitoring and treating wounded snakes and other wild animals. The location for the release of the rescued snake is decided based on the species, its ecology, manners and the accessibility to the natural habitat which is most suitable for it. Elephant watchers pay utmost attention to avoid the repetitive release of snakes into the same space as it may disturb the native ecological balance.





Picture 2: Elephant Watchers Fixing Cage to Catch Tiger

Source: Primary data

Solar power fencing is a technologically operative wild animal preventive mitigation measure and a permanent physical barrier. In this approach, solar plates produce twelve volts of electricity to a solar fence erected around the agricultural areas and human settlements. The shock the animal experiences while coming in contact with the solar fence doesn't kill it; it undoubtedly scares away not only the animal which comes into contact but also any other creatures that are concerned by the shocked animal's terror calls/cry (Agrawal *et al.*, 2016). It produces weak pulses of high-voltage current, and the wild animals getting in contact with it occasionally refrain from crop-raiding. Daily maintenance is required for these fences as the vegetation near them must be cleared regularly for their smooth functioning. The responsibility of the maintenance of solar power fences is entrusted to the elephant watchers. They repair the lines and pillars of solar power fences destroyed by wild animals, especially elephants. These mechanical works are carried out by the elephant watchers during the daytime. Elephant herds often smash solar power fencing. It was found in the field that if the elephants are enormously hungry, they destroy power fences aggressively. Hence, in these circumstances, it requires a scientific improvisation. At this stage, the elephant watchers also act as engineers, dealing with technology and pulses of high-voltage current.

As per the forest department proceedings, solar power fencing is the cheapest preventive measure to mitigate human-animal conflicts. It costs 1.2 lakhs (proposed as erection charges) per kilometre. The State Forest





**Picture 3: Solar Power Fencing**

*Source:* Primary Data

Department has erected 2413.7 kilometres of solar power fencing to mitigate human-animal conflicts in Kerala (KFD, 2021). It was also revealed that well-maintained electric fencing combined with the responsibilities of elephant watchers is more successful against common wild animal crop raiders.

### **Monkey Watchers**

Monkeys are yet another species that were found to attack humans and damage or destroy all possible properties in the research area. Various breeds of monkeys like the Lion-tailed macaque, Bonnet macaque, Nilgiri langur, and Common langur unravel violence in the villages. If a troop of monkeys starts to attack a place, it is better to leave it, selling off everything or leaving everything created to date. Most of the breeds of monkeys that cause trouble are those that have been declared as endangered species by the IUCN. In the past, humans and monkeys co-existed peacefully (Wadley & Ramamoorthy, 1995), but today the situation has transformed into conflicts.

The villagers who are attacked by monkeys are also protected by the elephant watchers. They are posted in high-monkey attack areas and scare away monkeys from human settlements and agricultural fields. To keep monkeys away from human settlements during the daytime, the forest department also organises numerous patrols in villages with the support of the elephant watchers.

Mr Balu (pseudonym) 44-year-old, elephant watcher said,

*“I have been working as an elephant watcher for the last eight years. It has been five years since the monkeys started severe attacks. They pluck all vegetables and fruits along with the sprouts and leaves, damaging the whole plant before maturing. Monkeys ruin everything edible to humans as they feed on them. The behaviour of the monkeys is so similar to that of humans. Monkeys attack either alone or in troops. There is nothing left to resist their attacks as they overcome all hurdles raised by elephant watchers and villagers. Like humans, the monkeys enter houses by removing roof tiles. They also enter through the chimneys and air holes. They wreck everything inside the house that words can’t convey. They feed on everything consumable, like cooked food, rice and vegetables, and destroy whatever remains. After they leave, the house under attack resembles nothing less than a war field. Monkeys also urinate and excrete all over, especially on clothes and beds”.*

Elephant watchers are equipped with sticks, crackers and slingshots to guard against monkey attacks; when monkeys attack the villagers or their properties, they produce sounds and scare them away with these materials. However, this is only a temporary measure. Monkeys return to the same place within a short time. Troops of monkeys are also chased away by throwing firecrackers and stones.

In Wayanad, 733 cases were officially recorded against monkeys for damages and attacks (Sengupta *et al.*, 2020), next to the number of elephant attacks. Farmers usually report only the most severe monkey attacks to the government authorities for compensation. Therefore, the majority of the attacks that run into thousands per year go unreported. During fieldwork, farmers complained that monkeys produce severe damage to their cultivation. The conflict has affected not only the farmers but also the non-farmers.

### **Equipment Used**

Elephant watchers use traditional mitigation measures to overcome conflict situations and are not provided with any equipment by the authorities for their operations. Traditional mitigation methods are those that the local communities have been using for a long time and have been transmitting down through generations (Yaw & Lonneke, 2008). Forest watchers usually use low-end resources that are locally available. Most of the traditional methods are less effective deterrents, either temporarily easing the problems or shifting them to adjacent spaces.

They trap snakes using traditional methods and release them into the deep forests using jute bags. Snake tongs, also known as snake sticks, are

not provided to catch snakes from human settlements. Firecrackers (Gunde) are the only defence material supplied by the forest department. During the harvesting season, firecrackers producing varying sounds are burst across the village throughout the night. Minor, with heavy sound and terrific sparks, hydrogen bombs producing deafening sounds are used to scare wild animals. People keep firecrackers in every household. However, mitigation actions used by crackers deliver only temporary relief and do not provide a durable result for conflict situations. Elephant watchers use low-quality electric torches for light at night to chase or scare the most dangerous wild animals.



**Picture 4: Equipment Used by Elephant Watchers for Scaring Wild Animals (Electric Torch, Crackers, Pipe Bomb, Bow and Arrow)**

*Source:* Primary Data

Elephant watchers use electric torches as a defence device to chase the wild animals away. Some believe that reflecting torch light precisely into the eyes is an effective technique to scare wild animals away. Effective use of torches requires getting close to the animals putting the users at high risk. This is highly unsafe as it even ends in human deaths. Torch offers only temporary relief for a shorter time. Large animals like elephants have become familiar with torches and are no longer scared of them. The wild elephants have also started attacking or chasing those who focus the torch on them. Elephant watchers practice using firecrackers, hitting them with mud balls using a catapult, etc., to turn back the wild animals from the human settlements. Working at night is even more challenging without searchlights. The unavailability of vehicles also makes overnight operations more problematic to elephant watchers.

A belt buckle knife, an edged tool, is also used by elephant watchers and is placed inside as part of a belt for self-defence. They also use slingshots with

mud petals to chase wild elephants away. Some essential types of equipment like rope ladder, net, snake tongs and handling kit, light, torch, and handheld crackers must be provided to elephant watchers.

### **Traditional Mitigation Practices**

Traditional mitigation techniques have been passed down through generations by the native communities and have been used for a long time. In the fields, elephant watchers typically make noises with their mouths as a guarding strategy to keep animals away from human habitations. They also set fires along the front lines of agrarian fields and nearby their camping sheds from evening 5:30 pm to morning 7:00 am. They also carry fire torches during the night for their operations.

Mr Velayudhan (pseudonym) 55-year-old, elephant watcher said,

*“Once, we had lit a fire near the agrarian fields at night to scare away the elephants, but a tiger came and rested near the fire, maybe to escape from the cold weather. Thereafter, we sat with the support of torchlight for days due to the fear of tigers”.*

Fire in various forms is the least expensive method for them to keep wildlife away. However, such fire attacks may sometimes make the wild animals more violent, on certain occasions leading to reverse attacks on elephant watchers. Repetitive use of fire techniques eventually flops as the wild animals become familiar with them. Wild elephants used to panic and flee when they encountered fires and fire torches in the past, but they currently attack people who light a fire near them.

Elephant watchers also apply ‘Bird’s Eye’ chilli, commonly known as Kanthari chilli, to drive away wild elephants. In a tin bucket, unbroken Kanthari chillies are deposited on glowing charcoals (hot wood fragments). Observing the flow of the wind, they blow its scent and smoke towards the elephant’s path, and the elephant cannot bear the smoke and smell of the course; as a result, the elephants will move away from this space.

The other species that make the lives of elephant watchers more difficult are tigers. Tigers are frequently spotted by them while on guard during the dark in the human settlements. The number of people losing their lives in tiger attacks has increased considerably in Wayanad. Tigers scare people the most. During 2017-18, tigers killed 12 people in Kerala (Kerala Forest Statistics, 2018). Tigers usually come out of forests after sunset and roam at night to hunt for



food (Joy, 1995); they occasionally come out to villages during the daytime. But generally, they tend to rest during the day in the forest under the shade of large trees. Mostly they choose to relax near springs or streams of freshwater (Ibid). Tigers choke the entire village with fear and chaos.

Mr Raman (pseudonym) 43-year-old elephant watcher said,

*“We still follow traditional mitigation techniques that our ancestors passed down. We could easily recognise an animal by looking at its eyes at night in the vicinity of forest fringes. One should look around with a flashlight for a herd of deer at night. Deer’s eyes are visible because they appear pale green or yellowish. You may confidently roam in the field if you see deer grazing freely because there won’t be a tiger anywhere near a herd of deer. The deer have the unique ability to smell the tiger’s mouth odour from a great distance away. The herd will vanish when the tiger approaches; through such traditional methods, we recognise the tiger’s presence in a region and not by using modern drones and cameras.”*

Most of the traditional mitigation methods have become ineffective against the attacks of wild animals. Though partially successful in reducing the attacks, they are a temporary solution. The animals have become familiar with and adapted to such techniques in due course and are no longer scared of fire, loud sounds, or other disturbances.

### **Working Conditions of Elephant Watchers**

Elephant watchers work both day and night, and they are permanently attached to forest stations. They are positioned as squads; each squad comprises two persons in high-conflict locations. Elephant watchers need to work all days in a month at a pay of ₹ 10,000 per month, and wages are not always paid on time and they may take months to receive it. Their income has always been meagre, resulting in poor living conditions and heavy indebtedness. They assist the forest department in other forestry and non-forestry activities. They help forest department authorities in preventing poaching and smuggling and serve to stop forest fires. Elephant watchers have to undertake several functions, including policing, afforestation, forest and wildlife conservation, etc. Forest officials being assaulted during the protests organised by native people as a reaction to wild animal attacks has become a typical scenario in the study area. In such risky situations, elephant watchers are generally attacked by the public as they safeguard and protect forest officials from the attacks of natives.





**Picture 5: Resting spots used by elephant watchers**

*Source:* Primary Data

### **Caste Category and Age of Elephant Watchers**

People from the tribal communities living in settlements within the forests and along the forest fringes are recruited as elephant watchers. All of the elephant watchers employed are from the scheduled tribe community. They depend on the forests for their livelihood and are familiar with the challenging forest landscape that others find hostile. They are temporary forestry sector guards comprised of the economically and socially weak people of the local forest fringe tribal colonies. The major tribal groups working as elephant watchers in the Wayanad district were Adiyar, Kurchyar, VettaKurumar and Kattu Naikkar. These people engage in these hazardous tasks due to their social and economic backwardness. The results of the current study also demonstrate that the vast majority of elephant watchers were found to be less educated or illiterate, which pushed them to pursue these dangerous jobs. The majority of the elephant watchers belong to the age group of 45 to 55. From the field observations, it was found that comparatively, old age men are engaged as

elephant watchers. Fewer people from the younger generation are engaged as elephant watchers, and their number is just below ten. The current study also demonstrates that an overwhelming majority of elephant watchers are less educated.

## Training

The administrations have not yet provided elephant watchers with any training and certification. Elephant watchers apply their traditional skills and knowledge that have been passed down through generations to chase and scare elephants and other wild animals away from human settlements, catch snakes, and manage injured wild animals. Due to a lack of training, it is difficult for them to deal with dangerous wild animals and poisonous snakes. They just barely escape from several deadly situations narrowly. They could have addressed these circumstances more effectively if they had been adequately trained.

## Health Problems Faced by Elephant Watchers

Poor sleep at night is a challenge for elephant watchers and this results in severe sleep deprivation among them. They engage in guarding and protection for many days at a stretch without adequate sleep. They are unable to sleep during the day as it affects their routine. Sleep deprivation paves the way to many serious issues like memory loss, diabetes, depression, anxiety, and other psychiatric disorders. Sleep deprivation also causes strokes, hypertension, heart attacks, deteriorated brain functioning and low fertility rates (Landolt & Dijk, 2019). Due to the hectic crop guarding duties, the majority of them lose their sleep for months. Illnesses caused by sleep deprivation are rampant among them, but they have not been sufficiently identified and diagnosed. Sleep deprivation has detrimental effects on the brain and cognitive functions. The constant loss of sleep has also escalated the chances of people being attacked by wild animals. Sleep deprivation along with further activities during the day and guarding responsibilities at night, have resulted in mental ill health among them.

Mr Balan (pseudonym) 53-year-old elephant watcher commented,

*"I have been working as an elephant watcher for the last seven years. Continuous sleep deprivation is causing a lot of health problems for most of us. Sometimes, I might not know what I am doing or saying. It also affects the intake of food. Crop guarding duties at night affected appetite and digestion too. The glucose level in the*

*blood increases, and there is a constant fluctuation of Blood Pressure. My colleagues also have such issues, but nobody takes care of them. I think that sleep deprivation might have even caused a few deaths as the sleep-deprived easily get trapped in front of the wild animals. Since they fail to resist, they succumb to death."*

Elephant watchers cannot eat on time and they also eat unbalanced meals. It has negatively impacted their health, and nutritional deficiencies are common among them. Low blood sugar issues are very common and it generally leads to the increased production of cortisol, leaving them stressed and hungry. Stress and fatigue are some other problems that have not been diagnosed properly. The unavailability of good and healthy food has led to nutritional issues. Some of them are also overweight and high blood pressure and high cholesterol are common among them. Elephant watchers generally produce sounds from their mouths in the fields as a guarding strategy to deter animals from human habitations. Creating constant noises from the mouth also causes serious throat difficulties for them.

Throwing firecrackers and using sticks numerous times a day causes severe shoulder pain among the elephant watchers. Pain generally releases from the front of the shoulder to the side of the arm, and may happen while throwing firecrackers or continuously using sticks. When a muscle is overworked, it can become inflamed. The rotator cuff is frequently irritated in elephant watchers resulting in serious health problems and pain.

Since the elephant watchers also need to work in remote forests with weak or no mobile network, it is challenging to get in touch with their families. They have problems with their psychological well-being, and some are experiencing mental health problems. The mental disorders of elephant watchers due to the tragic attacks of wild animals, particularly elephants, go mostly unidentified and unattended. It also includes aggravated workload and psychological trauma. In addition to the dangers posed by wild elephants and other animals, they also face threats from wildlife poachers.

## **Accidents**

Elephant watchers play a significant role in drugging, trapping and protecting wildlife. They certainly require getting close to the animals to chase them away and therefore are at high risk. They are killed, and some are injured in elephant attacks in Wayanad. Most of the incidents have occurred when the elephant watchers were trying to chase away elephants that had strayed into human habitations.

Mr Bellu (pseudonym) 55-year-old elephant watcher from Kattunaikka community commented,

*“Once a forest watcher of the Tholpetty forest range in Thirunelli went missing. He belonged to the Kattunaikka community, was a keen observer, and had substantial knowledge of the jungle and wild animals. His wife had filed a complaint at the Thirunelli police station and also to the forest department on his missing. For several days forest authorities tried to locate the watcher and they failed. The watcher was assumed to have died of a wild animal attack in the forest. After several attempts, the forest department stopped the investigation. Subsequently, Kattunaikar, the sons of the forest, searched using our traditional ways. After several attempts and a continued search for several days, we discovered the remains of the tribal watcher from the banks of a stream. Some unknown wild animal (assumed to be a tiger) had already consumed a portion of his body. We also found his mobile phone, walkie-talkie from the forest department and his torn clothes nearby.”*

The forest department generally allows preliminary monetary assistance to the families of the deceased. Elephant watchers are protected under group insurance coverage by the Forest Department, considering the risks involved in the task. The forest department generally compensates rupees ten lakhs to families of the deceased who are killed in these conflict situations and compensates two lakhs for the injured. Elephant watchers also act as fire controllers; they extinguish forest fires and also install fire lines to reduce the occurrence of forest fires. Many elephant watchers in Kerala have died in numerous attempts to put out fires in forest areas and prevent them from spreading to surrounding areas.

## **Conclusions**

The official hierarchy of forest management places elephant watchers at the bottom of the ladder and does not offer an attractive profession. Elephant watchers are doing dangerous employment involving high risk, but they remain a group of poorly paid, under-equipped, untrained and often demotivated workforce. They suffer a lot as they are temporary workers. Their salary is neither guaranteed nor fixed. Even a small payment is delayed for several months. Any kind of breaks are banned for them and they do not have weekly or monthly holidays. Most of them don't even have proper shoes or a set of uniforms. The difficulties confronting the elephant watchers must be addressed immediately. To solve these concerns, the forest department, the three-tier Panchayati Raj systems and the district administrations must



collaborate. Native local tribal peoples are the best available workforce to safeguard the forest and forest-dependent communities, and they must be made permanent in government service, and their financial requirements must also be addressed. Well-equipped and well-trained elephant watchers will only handle human-animal conflict issues.

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