



This calf faces an uncertain future if human-elephant conflict is not resolved in India.

Asian elephants are revered in India for their link to the Hindu deity Ganesha, yet they are also persecuted for raiding crops. Their future survival depends on finding ways for people and elephants to peacefully coexist.

Photos by Kalyan Varma

SHARING SPACE

In remote villages of south India, elephants are vying with people for food and land. Sara Mizzi reports.

Off a dusty road in a small village in India's lush state of Karnataka, dense coffee plantations and paddy fields dot the landscape. Conservationists Vinod Krishnan and Ananda Kumar, from the country's Nature Conservation

Foundation, are greeted by a farmer named Virupaksha whose paddy field has been raided by a herd of Asian elephants. The damage is evident: trampled and half-eaten rice is scattered across his two-acre patch and elephant footprints mark the churned soil. Virupaksha explains that this is the fourth time this year that elephants have raided his field.

"My biggest concern is that they will come back and destroy the rest of my paddy before it is ready to harvest for my family to eat," Virupaksha says. He seems more forgiving than many of the farmers in the district of Hassan. He understands that elephants have little forest in this part of southern India to find food. "For a small amount of food, we fight a lot. Elephants need to eat so much, so you can just imagine the potential level of conflict."

DEADLY ATTACK

Early morning fog hangs heavily below a purple sky. I meet Ananda and Vinod to understand the extent of human-elephant conflict in this part of India. By mid-morning we hear that a man collecting maize nearby has been killed by an elephant. Some villagers claim to have seen the elephant approaching the field, but they did not manage to warn the man in time.

Witnesses say that it was a single bull elephant heading for the nearest pocket of forest, as a refuge from the clusters of people that started to form on the streets. "Villagers are ▶



Left: a herd of elephants raided this farmer's paddy fields. The rice would have been ready to harvest in two months. Below: A villager prepares a fire cracker to throw at elephants in Hassan to try and keep them away from his crops at night.



WARNING SIGNS: WHEN YOU SHOULD BE WARY

Elephants express a great variety of emotions. They greet each other, play, mourn the passing of family members and fight. Like humans, they have unique personalities. Elephants flare their ears and stare when they feel threatened, but generally tend to move away when they sense the presence of humans.

stressed and it's time to give them some space. Ignoring these warnings and moving closer to the animal could trigger a potentially fatal charge.

Flared ears, sniffing with their trunk, a stiff tail and kicking mud repeatedly are signs to watch out for. They indicate that an elephant is

An Asian elephant charges with flared ears – a warning sign.



remains high, the country's human population of 1.3 billion is placing enormous pressures on the landscape, and people's tolerance has lessened as the elephants have become more visible.

Poor subsistence farmers grow crops along the peripheries of the forests and elephants raid these palatable crops. It is estimated that over 60 per cent of Asian elephants in India now live outside forest areas and alongside humans. "There are always going to be pockets and populations of elephants that don't live in protected areas. These animals need so much room that they are inherently going to occupy and share space with people because they can't all be packed into the tiny parks we have in India," says conservation biologist Krithi Karanth. And coming across an elephant unexpectedly can be fatal.

Outside a dilapidated building in one of the high-conflict villages in Hassan, Ananda and Vinod hold their first village meeting to discuss the idea of introducing early warning systems. At first the mood is edgy, with villagers eager to voice their frustration. "Just catch the elephants!" somebody shouts. "Captures don't work, we've tried that,

let's listen to what they have to say," another one replies. Ananda explains the plan to introduce warning systems that will help inform communities where elephants are and make it easier for people to avoid any fatal encounters, particularly in the early hours of the morning and evenings when elephants are most active. ▶

"ELEPHANTS NEED SO MUCH ROOM; THEY ARE GOING TO SHARE SPACE WITH PEOPLE BECAUSE THEY CAN'T BE PACKED INTO TINY PARKS."

of this year and to get villagers on board. Ananda is the man behind the system, with the majority of funding coming from Elephant Family, a charity that supports grassroots conservation projects helping the Asian elephant.

The aim is to install electronic billboards and develop a text-message alert system to inform people of elephants' locations. "For the system to work we need a proactive involvement from the community," Ananda says. "If it's a success, then I believe it can benefit many landscapes across India."

GIANT RANGE

A hundred years ago, Asian elephants were widespread across the continent, with over 100,000 in the wild. But their habitat has declined by almost 90 per cent in the past decade, causing numbers to plummet to about 40,000 today. The Endangered species was formerly often known as the Indian elephant, and India remains one of its last strongholds, having more than 60 per cent of the species' population. While respect for the animal



Above: Asian elephants in Bandipur National Park, Karnataka. As elephant habitats continue to be fragmented, little space is left for these mammals. Right: villagers observe elephants at the foot of the tea hills in Valparai.

often quite vocal when incidents like this happen," Vinod says. "It is when people get killed or injured that you really see things tip over the edge."

Human-elephant conflict is rife in this part of India. Fragmented pockets of protected forest and monoculture plantations are the only retreat left for the elephants, which places them closer to people than ever before. This can prove deadly. "Elephants are such huge animals that even a little push from one can be fatal," Ananda explains. "But for an elephant, it is just moving you aside."

Back in 2014, when conflict was at its peak in Hassan, pressure from villagers forced the Forest Department to capture 22 elephants – the largest single seizure ever to take place in India. The process took four months and the elephants were either relocated or taken to camps. For a brief time, peace was restored, but shortly afterwards elephants from neighbouring villages began to occupy the area. Conflict was on the rise again.

Vinod relocated to Hassan in the hope of helping to solve this problem. He has been speaking to farmers and documenting conflict hotspots for the past two years. The plan is to implement early-warning systems by the end



Conflict between tea estate workers and elephants can be reduced by early warning systems.

“IF YOU CAN GIVE US THE RIGHT INFORMATION ABOUT WHERE ELEPHANTS ARE, YOU WILL ALLOW US TO GET ON WITH OUR LIVES.”

In rural villages one problem is locals getting drunk and falling asleep at the side of the road bordering the reserve forests. Accidents are common but could be easily avoided. Ananda hopes that the early warning systems will also help shift people’s mindsets and raise awareness among those villagers who are being reckless.

A local teacher is quick to applaud the system. “Over there,” she says as she points at the building next door, “there is a school where toddlers come. Elephants come here quite often and parents won’t send their children to school if they know an elephant was here the night before, even if they are long gone.

“There are usually about 14 children who study here, but after an elephant sighting there will be hardly any children – maybe one or two,” she explains. “If you can give us the right information about where elephants are, you will allow us to get on with our daily lives.”

During the meeting, a villager points at his friend and says that he has been up all night for a week chasing elephants away from his fields. “Last night he fell asleep and woke up from a quick nap to find that elephants had



Elephants must cross tea estates in Valparai to reach surrounding habitat. The Asian Elephant Alliance wants to create corridors to connect ranges.

already come and destroyed his crops. How can these systems help?” Ananda explains that while elephants are opportunists, “If we know where they are in advance, we can help save our crops by making noise and prompting them to move away.”

ENDANGERING LIVES

Every evening during the peak months from November to January when rice is grown, villagers gather in the high-conflict areas in Hassan to scare elephants away from their fields. At 5.30pm in the remote village of Vadur local farmers are already assembled along the side of the main road near a small reserve forest, less than 50m wide.

A forest guard accompanies them to help scare elephants away. Men start howling and climbing trees. One man is complaining to Ananda that he has taken a loan to grow his paddy field. “If elephants come in my field they can destroy everything in one night. What am I to do?” We are interrupted as a firecracker is set off followed by more howling and screaming. An elephant trumpets. The herd splits and the men pursue the animals to push them towards the other side of the reserve. This activity is commonplace in out-of-the-

way villages across India, but it does not prevent people being killed.

In the undulating emerald-green tea hills of Valparai in the state of Tamil Nadu, early warning systems are living proof that people and elephants can peacefully co-exist. A century ago dense forests dominated the land, but today these forests have been transformed into tea estates. “Elephants have been forced to use the tea bushes as corridors to get from one fragmented forest to another,” Ananda explains. “If you are working in the tea estate and you do not know where elephants are, it could prove very dangerous.”

Then came the launch of the early warning systems. Initially the elephants’ locations were broadcast via the local television channel. But TV viewers began to decline, so in 2011 a system of text-message alerts, phone recordings, red-light alerts and bus announcements was introduced.

Every day three local trackers are sent to the field to search out the elephants. The animals’ locations are then sent to the main office where the information is recorded and transmitted to over 4,800 subscribers covering 24,000 people. On the main local bus routes, a recording



Above: As India’s human population continues to grow, elephants and people are having to live closer together.

Below: A local villager receives an SMS alert about elephants’ location near the town of Valparai.



is repeated every eight minutes – the time it takes to get from one bus stop to the next – between 6pm and 10pm, when it is most likely that elephants will come out and clash with people walking home from work after dark. For those who don’t use the bus, a text message and recorded voice message is sent to their phone, while a red alert light goes off within a 1km radius of an elephant’s tracked location. Since the system was introduced the death toll fell to zero last year.

STAYING SAFE

It’s late morning and elephants are crossing the tea estates while workers are busy plucking tea leaves nearby.

The previous evening the villagers and the tea estate owners had been informed of elephants’ whereabouts. “The proximity of elephants in the evening provides a good indication of where they will be in the early morning and which areas workers should avoid,” says Ganesh Raghunathan, programme coordinator at the Nature Conservation Foundation.

One tea worker, Vijaylaxhmi, recalls that before the early warning systems were introduced getting home safely at night was purely down to luck. “Now, after 6pm I use these messages as well as the lights to find out whether elephants are nearby because I have to walk ▶

REINSTATING ELEPHANT HABITATS

Across India, people are encroaching on elephant habitats and living along their main migratory routes, which encourages the animals to raid farmers’ crops as they cross from one forest range to another. In 2015, five NGOs – Elephant Family, the World Land Trust, International Fund for Animal Welfare (IFAW), International Union for Conservation of Nature

(IUCN) Netherlands and Wildlife Trust of India – joined forces to help address this problem by launching the Asian Elephant Alliance. Its key aim is to raise £20 million to secure 101 elephant corridors across India by 2025 and connect fragmented forest ranges. This will allow safe passage for India’s elephants and help reduce human-elephant conflict.

Road: Sreedhar Vijayarishnan



Above: Nagerhole National Park is used by elephants as a pathway to cross to adjoining parks on their seasonal migration. Left: a jeep gets too close to an elephant in the Biligiriranga Hills, Karnataka.

SO FAR, ELEMENTS OF THE SYSTEM HAVE BEEN ADOPTED ACROSS OTHER PARTS OF THE COUNTRY AND BY COMPANIES.

from the bus stop back home in the dark and the path I use is surrounded by forest.”

Ananda believes that the early warnings are making it easier for people to take the initiative and protect themselves. “If you know an elephant is on or near your route this will make you more alert and aware of your surroundings.” The plan is to take the concept and adapt it to suit different landscapes across India. So far, elements of the system have been adopted across other parts of the country, and by private companies such as Tata Coffee and Parry Agro.

The conservationist admits there is still much to learn, particularly in places where crop raids are a big problem. But if more people start to adopt the early warning model it is hoped that both communities and Asian elephants could benefit hugely – and there might be more chance of a future for these majestic animals in today’s human-dominated landscapes. 🐘

RIDES AND RESPONSIBLE TOURISM

Tourist elephant rides have become increasingly popular in Asia, particularly in Thailand. Asian elephants are not a domestic species and the biggest concern is the type of training to which these animals have been exposed to ensure they become ‘tame’. In addition, tourism that encourages contact

with elephants – and especially babies – has an impact on wild populations. It is estimated that as many as 100 elephant calves a year are captured and smuggled from the wild in Myanmar to tourist camps in Thailand. Watch elephants in national parks for a true experience of them roaming free in their natural habitat.



SARA MIZZI writes about wildlife and conservation, focusing on endangered species; www.sara-mizzi.com

➕ FIND OUT MORE

Discover more about Asian elephant conservation at www.elephant-family.org and www.ncf-india.org