



“ZIRO” EXAMPLE TO MEET WATER NEEDS LOCAL FOLK GIVE UP OWN LAND

Ziro Valley's unique success in India: people's participation for water conservation, tourism and sustainable life...convincing feats...

Photo
Feature
on
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After a wonderful walking tour of Hong Village our local guide insisted we visit Siikhe Lake. I was sceptical, honestly. A lake is a lake. But once he told us the story behind it, curiosity got the better of us. We arrived late afternoon, to the sight of a beautiful lake surround by meadows with pine forests as the backdrop. This green carpet was dotted with cows, bells and all. Few log hut stood invitingly at the edge of the pine forest, there balconies full of bright red flowers.

A blue sky with a few puffy white clouds completed this picturesque scene. Even with the bright sun the wind was cold enough to make you pull your jacket tighter. The view in front us felt similar to our hikes to Bavarian lakes, Lautersee and Ferchensee from Mittenwald following mountain paths, green meadows, pines forests and wild flowers. Siikhe had a calm feeling. This quietness was broken once in a while by the noise of a speedboat ride meant for tourists . While the environment looks entirely natural, It isn't.

Ziro's Hidden Challenge & an Innovative Solution

Ziro is world-famous for its breath taking natural beauty and its



Next generation receiving lake conservation tips, Soumya Mukherrjee

globally admired for its unique agricultural practices. Yet beneath this lush green exterior lies a major challenge that many travellers might never notice: the town faces a severe shortage of natural water resources. Despite lacking major rivers, the resilient people of Ziro have always found innovative and harmonious ways to manage their farming and daily water needs.

The creation of Siikhe Lake was their first great triumph, but it also set in motion a chain of developments that would transform the entire valley. Originally, the

land where the water now ripples beautifully was productive farmland owned by local villagers. However, recognising the urgent need for a sustainable, long-term water source—particularly to secure drinking water and safeguard their legendary rice-and-fish farming system—the community made a profound choice.

They sacrificed valuable agricultural land to build a collective future, transforming part of the valley floor into an artificial reservoir that would become essential to the town's water security.



A Watch Tower overlooking the lake, Soumya Mukherjee

The Siikhe Lake Triumph

Built on the Siikhe Stream between 2017 and 2019, the lake stands today as a compelling, community-driven success story that links water security, local livelihoods, tourism, and wetland conservation. The project emerged from a unique partnership between the Water Resources Department and the Siikhe Multipurpose Cooperative Society. What makes this achievement particularly moving is its spirit of collective sacrifice: around 90 local families voluntarily donated their land to help secure water resources for generations to come. Look at the impact:

Size: 75,160 sq. m earthen reservoir
Water Capacity: 120,000 cubic meters

Irrigation Reach: Currently irrigates 28 hectares, with the potential to expand to 50 hectares

Economic Impact: Boosts fishery income and creates sustainable tourism-related employment managed directly by the cooperative

Scaling Up with the Sii Lake Project

The success of Siikhe Lake demonstrated that community-backed water conservation could work on a meaningful scale. Inspired by this model, the valley

took its next ambitious step in February 2020 with the launch of the Sii Lake Project, officially known as the Amrit Sarovar Sii Buri Water Conservation Project. Inaugurated in late 2022 across the Dango Stream, Sii Lake—affectionately nicknamed "Lake Placid" by local youth—was developed as part of a national effort to create sustainable water bodies across India.

This second reservoir serves as a safeguard for the valley's climate-resilient agricultural system. Its check-dam mechanism regulates water discharge, mitigating seasonal flood risks while simultaneously recharging groundwater aquifers and improving downstream irrigation for Ziro's renowned wet-rice paddy fields.

A Shared Model for Sustainable Eco-Conscious Tourism

As tourism grows around both Siikhe and Sii lakes, the community has taken deliberate steps to ensure that development does not undermine the environment they worked so hard to create and protect.

Small restaurants and cosy homestays have emerged near the water, yet there are no concrete high-rises or intrusive commercial developments. Instead, infrastructure has been built

INSECTS' MUSEUM?

Anand Mishra

President, TWSI

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A mused to receive the plea: setting up an Insect Museum in one of our upcoming properties!

Colleagues in wildlife society tried to convince me as I

learn more: insects are among the most undermined wild species across the globe. Scientists do not know how many species exist. Pesticide and insecticide applications have wrought havoc over their lives. They are responsible for all aspects of human survival eg., catalysing pollination.

Our group carried out insects' status assessment during June 2026 across Jaipur's landscape. Dr. Kashmeera and Dr. Kamila, insect experts, were hosted for a week. Our volunteers assisted them at various habitats. Process of identification was yet to be completed at the time of writing this piece. Wonder how to congratulate all those who took a pledge to devise a strategy for insect-conservation in this part of the country.

It is part of our on-going project: what birds offer to citizens and what citizens give back to birds. Intriguing, however, getting clearer: birds are responsible to maintain civic health as most of them consume insects. Kanoria Mahila Mahavidyalaya has come up to carry out sociological assessment of citizens' perception of birds, to assist us.

Ere I am asked about decision on Insects' Museum, I like to seek expert advice about it. The will is here. The way is to be searched. ●



Butterfly Park developed near the lake, Soumya Mukherjee

thoughtfully using locally sourced and sustainable materials such as bamboo and timber, allowing it to blend seamlessly into the high-altitude landscape.

This careful approach has created a rewarding experience for visitors. Travellers can stay with local families, wake up to views of the mist-covered lakes, and immerse themselves in the warmth and hospitality for which the valley is known. Guests share home-cooked meals, listen to stories around the hearth, and gain a genuine understanding of local life.

Both lakes also feature low-impact recreational spaces managed by the community.

Visitors can enjoy peaceful paddle-boat rides or dine at family-run eateries serving authentic local cuisine.

Why It Is True Eco-Tourism

Perhaps the most remarkable aspect of this twin-lake model is its economic structure. There are no large hotel chains or corporate intermediaries siphoning profits away from the valley.

Revenue generated from entry tickets, fish-seed hatcheries, homestay bookings, and other

tourism activities flows directly back to local families and community institutions.

Beyond their impact on human livelihoods, the two lakes have evolved into thriving, interconnected wetlands that serve as important ecological refuges. In a valley without major river systems, these water bodies have played a significant role in restoring ecological balance.

For birdwatchers and nature enthusiasts, the lakes offer an

unexpected delight. Local groups such as the Ziro Bird Walk regularly monitor the area, and the lake has begun attracting several species of migratory waterfowl that were previously uncommon in the valley. Birds which have been spotted so far include Mandarin Ducks, Mallards and Northern Shovelers, Ferruginous Ducks, Tufted Ducks, Northern Pintails, Gadwalls and Greylag Geese.

Why Ziro's Conservation Story Matters

Ultimately, these peaceful water bodies demonstrate how small, community-driven conservation initiatives can deliver far-reaching benefits. They recharge groundwater, moderate local microclimates, support biodiversity, and help diversify tourism in a fragile high-altitude landscape.

When you visit Ziro, don't come only for the music festivals or the iconic paddy fields. Spend an evening by the lakes. Listen to the breeze moving across the water and reflect on what a community can achieve when it comes together to protect its home, its resources, and its future.



Board walk created around the lake, Soumya Mukherjee

ARE ANIMALS & PLANTS WITLESS? FLORA-FAUNA, MORE SENSIBLE

By Suhas Kumar, IFS (Retired)

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*From beasts, we scorn as
soulless,
In forest, field and den,
The cry goes up to witness*

--M. Frida Hartley

An acquaintance once commented on one of my write-ups, in which I depicted wild animals exhibiting intelligence and emotions, just as we humans do.

He commented that people often attribute human traits and abilities to animals, and they often err.

In his view, animals were inferior to humans, with only instincts helping them to survive. Frankly, I was appalled by this opinionated statement and wrote back to him saying this:

“My dear Friend, you know that the

wild animals of Sariska gather near the artificial waterholes as soon as they hear the clink-clank of a water tanker approaching, they put two and two together and intelligently discern that water is on its way.

Such an intelligent reaction doesn't come from instinct.”

What led this Tiger: I am inclined to say something about how animals behave when subjected to continuous, irritating human presence. In 2009, a tiger, or in your words, an 'instinct-driven tiger', in Bandhavgarh, suddenly leapt into a tourist jeep and punished some tiger-hungry and annoying tourists.

As anyone would say, this type of 'punishing' behaviour is quite unbecoming of wild animals (who are servants of their 'instinct' and therefore incapable of showing 'anger'). Unfortunately, the most

vicious animals on earth — humans — have coerced them to imitate human traits that sometimes make them angry.

I think all animals that the Almighty has bestowed with a brain cavity and some grey cells, as well as plants that do not outwardly display the presence of such organs, have varying degrees of intelligence, feelings, and emotions that may sometimes surpass those possessed by humans.

Sensitivity: Several scientific experiments have concluded that plants, without apparently possessing anything similar to a brain, display a positive response to music and even feel pain and understand affection (e.g., Sir J.C. Bose: *Response in the Living and Non-Living*, 1902, and *The Nervous Mechanism of Plants*, 1926).



Squirrel in love, Dr. Suhas Kumar

Dr T.C. Singh (1966) concluded in one of his studies that music stimulated the growth of balsam plants. The growth increased plant height by 20% and biomass by 72%.

When a tortoise comes around to help its mate, after it was turned turtle and struggling hopelessly on its carapace, and pushes it back to the normal posture, what should one call it, unintelligent and dumb or a thinking creature?

Floral intelligence: Plants are also capable of responding intelligently when the need arises. About five decades ago, in the African savannah, scientists observed strange behaviour by giraffes. They noticed that when they tried to browse the canopy of some umbrella-thorn acacia trees, the giraffes took a bite and immediately moved away from those trees. They could commence browsing again after walking away for some distance.

Scientists discovered the reason for this strange behaviour. They found that the thorn Acacia, just after being browsed, released a mixture of warning gases, including ethylene, which was carried by the wind to other thorn acacia trees of the same species in the vicinity, alerting them to the imminent danger.

The other trees receiving this signal immediately released toxins into their leaves that giraffes detested, and the giraffes moved far away or upwind.

“In 1966, C.I.A. interrogation specialist Cleve Backster connected a polygraph to a houseplant and, upon merely thinking of burning it, observed a spike in polygraph activity.

This moment strengthened his belief that plants might possess consciousness and even react to human thought—a theory explored in *The Secret Life of Plants*.

Human weakness: This book delves into a curious era where science, mysticism, and covert government research all entwined.”-- (source- Sam Stoeltje, PhD, a professor at Utica University, <https://worldsensorium.com/listening-to-plants-or-ourselves>)

Even though we humans possess a deadly weapon – 'the human brain', the Almighty has bestowed upon us limited natural abilities such as restricted hearing and sight as compared to other mammals (we can hear only within a range of wave lengths, beyond which we call them ultra or infrasonic, not audible to human ears (20Hz to 17 kHz).

We see up to a certain distance and only in daylight or artificially created light but several nocturnal animals can see clearly in moonlight. Till a few decades ago, nobody knew that elephants and whales communicate with each other through infrasonic sounds that travel several miles.

My dog throws tantrums if I punish him without a solid reason—he sulks and refuses to eat even his favourite food. My cat purrs and rubs her head against my shin whenever I fondle her. In 1923, a lost dog named Bobbie travelled approximately three thousand

miles to reunite with his separated master in Silverton, Oregon, USA.

Tomfoolery: My dear friend, we humans tend to think that nothing—living or dead—is superior to us. Therefore, we love to believe that "thinking, feelings and getting emotional" are prized attributes of humans only, while other living things are mere 'creatures' with instincts.

There are numerous examples of predatory animals adopting orphaned offspring of their prey species, which could have been their favourite repast, and taking good care of them as if they were their own.

It is pretty fashionable to portray animals and plants as unemotional, instinct-driven creatures created by the almighty to serve human needs and desires.

Yet, some of us also must remind ourselves to mend our ways and show some respect to wild brethren, for we too were roaming and hunting in the woods naked, not very far back in time.

I do not know whether my friend liked my sermon, but I had the satisfaction of standing up for our fellow travellers on this planet, who do not speak our language.



Sarus family in Devgaon near Dungarpur, Dr: Kamlesh Sharma

THE COUNTING GOES ON, REASON

By **Munir Virani**

Munir Virani is the Chief Executive of the Mohamed bin Zayed Raptor Conservation Fund in Abu Dhabi. He writes the Substack newsletter Jam Side Up: birds, belonging and a beautiful mess.

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There is nothing quite like beginning a day in Kathmandu with a good cup of coffee.

On this morning, I sat in my room at the Nepali Ghar Hotel, holding that first warm cup, trying to gather my thoughts before heading to the historic Yak and Yeti for the Society for Conservation Biology (SCB) Asia conference.

Nepal gives you warmth. Then it gives you more warmth. It offers comfort, security, gentleness, and a strange kind of peace, even though this country has carried more than its share of turmoil. Perhaps that is part of its beauty.

There was Dr. Hem Sagar Baral, my dear friend, with whom I go back more than twenty-six years to the earliest days of trying to understand the catastrophe that was unfolding around Asian vultures.

Martin Gilbert: But the most emotional moment of the week was seeing Dr. Martin Gilbert again. Martin stepped into my shoes in Pakistan in late 2000, when we were just beginning to grapple with the Asian vulture crisis. He



Munir Virani (left) and Martin Gilbert at Kathmanu meet

mentored young Pakistani students who went on to build extraordinary careers, Shakeel Ahmed, Jamshaid Chaudhry, Arshad Mahmood, and others whose names are now woven into the conservation story of the region.

I had not seen Martin for more than two decades. And yet there he was. The same wonderful Scotsman. The same calm energy.

The same generous spirit. Seeing him brought back a flood of memories from those early vulture years. And it brought me full circle.

More than twenty years ago, here in Kathmandu, The Peregrine Fund helped convene a vulture summit that shaped policy recommendations to the governments of India, Nepal, and Pakistan. We were facing the fastest collapse of any wild bird population ever recorded. Veterinary diclofenac was moving through the carcass chain and killing vultures at catastrophic speed. We made the case. We pushed the science. We asked governments to act. And they did.

Vultures' return: Today, after years of work by many people and many organisations, vultures are slowly returning to the skies of Nepal. I had seen that with my own eyes only days before in Pokhara, where critically endangered vultures now fly again in a valley where, twenty years ago, seeing them would have been almost impossible. That is what conservation monitoring really means. It is not simply counting birds. It is memory. It is evidence. It is accountability. It is the act of saying: this was lost, this was measured, this was understood, this was acted upon, and this is what returned.

On June 4, I had the privilege of giving a plenary talk on conservation monitoring. I shared the stage with two genuine giants. Dr. Darryl MacKenzie from New Zealand, the world authority on occupancy modeling. And Professor Nawaz Ali from Pakistan's Snow Leopard Foundation, who spoke about surveying snow leopards in the high mountains of northern Pakistan and even about rediscovering the sand cat in the deserts of Qatar.



Dr. Munir Virani's imagined scene of Nepal



(l to r) Dr. Munir Virani, Dr. Daryll McKenzie, Prof Nawaz Ali and Dr. Amir Malik, SCGASia -

Raptor success: I spoke about the work of the Mohamed bin Zayed Raptor Conservation Fund. About Saker Falcons in Mongolia. About how patient monitoring of one species, one electrocuted bird at a time, helped inspire the retrofitting of twenty-seven thousand power poles.

About a ninety-five per cent reduction in raptor mortality. About thirty thousand Sakers born on nests we built with our own hands.

Monitoring is often made to sound dull, technical, mechanical. It is anything but. Monitoring is how we listen to landscapes. It is how birds and cats and dolphins and frogs and rivers speak back to us. It is how we move from concern to evidence, from evidence to action, from action to recovery.

That is the *beautiful mess* part of Jam Side Up. The wires are everywhere. The library is burning. And still, somehow, people keep counting. Because someone has to. If we do not count, we do not know what is burning. If we do not monitor, we do not know what remains. If we do not listen, we do not know where to act.

We to do: And if we do not act,

there is no chance of return. The vultures of Nepal taught me that. The Sakers of Mongolia taught me that. The students at this conference reminded me of it again. This is the part I want to write carefully. Very carefully...

Throughout the conference, young Asian conservationists came up to me one after another. Some shy, some bold. Some carrying ideas. Some carrying questions. Some carrying both.

A young woman who had dedicated herself to frogs and toads in an urban landscape. Another working on environmental DNA for river

dolphins. A high school student from Pakistan studying wildcats around Karachi.

A teacher from Bhopal who inspired her students to put up two hundred nest boxes for sparrows. Eighty-seven per cent were occupied. That small idea grew, and now thousands of nest boxes are spreading across states.

A young owl enthusiast from New Delhi who studies Dusky Eagle Owls after work, on his own dime, because the birds will not wait for grant cycles to begin.

I shall do: Each one of them sought mentorship. Each one of them



A quiet morning in Pokhara from the Dahila rooftop, Munir Virani



A Saker falcon looking from its nest made by people in Mongolia, Munir Viranii

wanted to know how to keep going. How to build a career. How to find funding. How to translate love for a species into a life of work.

I will find a way to help them. I do not yet know exactly how. But I promise, I will find a way. Because in 1998, when I attended the World Working Group on Birds of Prey

conference in Midrand, South Africa, I was the young one.

I had not yet completed my PhD. I was wide-eyed and humbled. In the room were the giants. Ian Newton. Tom Cade. Peter Mundy.

David Houston. Robert Kenward. Jean Marc-Thiollay. Michelle Terasse. Peter Steyn. Stevn Piper. Alan Kemp. The legends of raptor biology who had shaped the field I was just entering.

I have a responsibility. Not to become one of the giants. That word is not mine to claim. But to make room. To listen. To encourage. To tell them their work matters. Because it does. I made a quiet promise this week.

Belief: A phrase came up in one of the talks. *Are we counting books while the library burns?*

It is a haunting question. But after

this week, I think the answer is more complicated.

Yes, the library is burning. Forests are falling. Rivers are changing. Species are vanishing. The work is urgent and the losses are real.

But the counting still matters. Because the people doing the counting are the people who, in time, learn to put the fire out. The work ahead is tangled. The wires are everywhere. The library is burning. But there are still people counting. There are still people listening.

There are still people walking into forests, climbing mountains, sampling rivers, checking nests, tagging birds, teaching children, asking governments to act. There are still vultures returning to the skies.

And because of all of them, especially the young ones, I still believe.



A falcon being released for exercises in Abu Dhabi

WHAT BIRDS GIVE YOU AND WHAT YOU GIVE BACK TO THEM

(From Conservation Times Desk)



Birders assemble on 9 February 2025 to outline own score, Naman Vardhan

Birds are all around us. They have long fascinated us and for centuries, humans have yearned to fly like birds-- a dream realized in the 20th century. We equate birds' flight with freedom, and their early morning chirps instinctively stir a sense of peace within. Their bewildering array of colours and plumages inspires our art.

Their influence extends beyond the symbolic and emotive and impacts the physical systems that sustain life. Mounting evidence suggests that birds provide a range of ecosystem services such as-- pest control, pollination, seed dispersal, nutrient-cycling-- that support ecological stability. even in urban landscapes where natural environment is fragmented by human-built spaces.

Project aim: But the avian world is not homogenous and there exists a vast diversity, both taxonomical, meaning species types and functional, meaning the range of ecological services. Protecting both is crucial for a balanced ecosystem. Any serious

conservation effort has to therefore begin from a deeper understanding of these dynamics within a specific ecosystem as these are a function of climate, habitat, resource availability, human and other factors.

Tourism & Wildlife Society of India (TWSI) is in process of



Scaly-breasted Munia, Naveen Kumar Singh

completing a novel project to document the avian biodiversity, its nature and related aspects as manifest in the rapidly urbanizing city of Jaipur. It a nutshell, it is to ascertain what birds give to citizens and what citizens give back to them. How?

Top birders: Six teams comprising 24 bird-experts spent quality time at 11 diverse habitats in and around Jaipur on 9 February 2025 and then on 24 March 2026.

They identified total 161 species of birds across varied habitats such as aquatic, grassland, forest, semi-arid and urban greens.

Team Kanota Dam, led by Naveen Kumar Singh, recorded 107 species, the highest for the exercise in first phase. Team Durga Lal Verma scored 117 species on 24 March, the highest record for Jaipur's one location.

All teams gathered at a common place in Jaipur where Deputy Conservator of Forest, Vijay Pal Singh and British Birder, Martin



Brown-headed Barbet, Naveen Kumar Singh

Goodman summarized the outcome. Each participant received a token award. Nishant Nath Shukla coordinated the session.

Insect-survey: The Volunteers carried out insects' status assessment during June 2026 across Jaipur's landscape. Dr. Kashmeera and Dr. Kamila, insect experts, were hosted for a week. Process of identification is on. We shall sum up results at a meet inviting cross section of experts. Finally, a book will be brought out and uploaded over Amazon like we did two earlier books: "Butterflies' Ecosystem" and "Insects, Who Cares." It will convey to citizens what they do not realize presently: urban biodiversity conservation as a tool for improved efficiency of human life.

Varying context: While various studies across the world have by now established that presence of bird population has a varied positive ecological, social and cultural impacts on urban environment and its residents, each urban ecosystem has its own local, even hyperlocal, and distinct dynamics (species interactions and adaptation, etc) and complexities

that call for tailored and targeted management approaches.

1. Varying ecological and structural contexts: Urban spaces too vary in their ecology, size, terrain and design, influencing both the ecosystem services and shaping the human interactions with elements of nature.
2. Different cultural context: This influences the perception of birds among the residents and the mental benefits derived by their presence.
3. Different threats- nature and level of threats to bird population differ from one urban environment to the

next. Better understanding of specific threats is vital for effective management of these.

4. Resource availability: Each city is endowed with different levels of financial resources amidst competing demands. These have a bearing on the quantum allocated towards conservation. A locally relevant study will help decision makers prioritize interventions.

Unlocking: The environmentalist Roger Tory Peterson once said, "Birds are indicators of the environment ('s health)". By attempting to unlock the specific ways in which birds can have a positive impact on the prosperity and well-being of the people of Jaipur, this project aims to further the conversation (among various stakeholders) around conservation making the efforts more mindful, meaningful and locally relevant.

Objectives: The goal is to let people live better through a balanced ecosystem chirped by birds. The Overall objective of the Project is to document the diversity and role of resident and migratory bird species in Jaipur's urban landscape. The specific objectives are:

- (i) establishing gravity and diversity of bird species to adjudge the merits they cause across human landscape; in particular, different roles played by Resident species (which breed here) and Migratory species (that



Birders in field, Naman Vardhan

reach here from different countries).

(ii) assessing the ecosystem services, provided by birds, for people in this region, significantly the roles played by Resident species (living cheek by jowl with people).

(iii) enumerating species that contribute more for peoples' welfare, assessing their population status, whether stable or in decline; if in decline, the measures that need to be adopted to step up number; outlining loss for people if birds will severely decline or gone, etc.

Methodology: Extensive field observations using standardized checklists across the 11 locations, carried out quarterly, to record species (migratory or resident), its abundance, nesting and feeding behaviours.

Alongside, notes will be made of their behaviours related to specific ecosystem services like pest-control, pollination etc. using simple observation guides, also about insect-intake.

Recording of habitat characteristics, population trends (particular focus on key species) and threats using checklists and comparisons across observations will help assess the impact of urbanization. Short periodic survey of the residents near these sites will complement the field observations.

Citizen-survey: Kanoria Mahila Mahavidyalaya has come up to carry out sociological assessment of citizens' perception of birds, to assist us. It is to understand and gauge their cultural perceptions of the birds and extent of awareness of their roles and to determine potential engagement in conservation.

The tools will be an optimum mix of digital and off manual technology with digital cameras,

mobile apps, google forms and the like complementing binoculars, notebooks, journals and paper survey forms etc. and Photographs complementing the written observation.

TWSI: Tourism and Wildlife Society of India (TWSI) is a non-government and not-for-profit organization, in service of Nature Conservation since 1979. <https://www.birdfair.org>



Nishant Nath Shukla, Dr. Santosh Charan and Naveen Kumar Singh sharing experiences at outcome of bird count, Naman Vardhan



Yellow-crowned Woodpecker, Naveen Kumar Singh

THEN YOU KILLED TIGERS NOW TIGERS KILL YOU

(FROM CONSERVATION TIMES DESK)

184 persons died having conflicts with Tigers and 929 persons injured in similar conditions in Tadoba Andhari Tiger Reserve during past four years. Of these, 22 deaths and 183 injuries took place during 2025 (January to June), while 27 deaths and 165 injuries during 2024.

94 Tigers were captured in the same Reserve during past twelve years by forest authorities as they were found causing trouble to people: 17 females, 11 subadults and others being males.

Of these, 36 were released back in wild while 58 ended up in zoos. Such details have come to light through Dr. Ravikant S. Khobragade, Head of Rapid Tiger Rescue Team at Tadoba Andhari Tiger Reserve.



A shrine in memory of Sarika Shende and two other women who died in a tiger attack in Tadoba Tiger Reserve, Emmanuel Yogini

No space now: There are 347 tigers in this Reserve. They do not enjoy “sufficient space due to urbanisation”, forest officials said, they can only increase surveillance and warning systems.

On May 10, Vandana Gazbhiye, 50, a daily wage earner, had been resting after collecting *tendu patta* (Indian ebony leaves) near Sindewahi forest area in Chandrapur district. Suddenly, a tiger sprang out at her.

“I still can't get over it; I could have died,” says Gazbhiye. The area is closed to tourism, but open for tigers.

The Chandrapur forest circle spans over 4,081 sq. km. It is home to 347

Tigers, up from 191 in 2020. As many as 272 villages are marked vulnerable by the Department.

Tigers all around: A male tiger requires a minimum home range of 40 sq. km; today, at least four tigers share that space. The forest area has remained the same but it has been fragmented by urbanisation: highways and expanding villages have cut off tigers from prey.

Farmers, *tendu* leaf and mahua collectors, *gurakhi* (shepherd community), and those working for the Forest Department within the jungle are the most impacted by human-wildlife conflict.

On the same day that Gazbhiye was attacked, three women from

Mendha village, were killed in an attack by the same tiger, later identified as T-81. One of the deceased was Sarika Shende. Her son, Dheeraj Shende, 25, says,

“We are living with tigers like people live with dogs. They are everywhere. I saw a tiger this morning.” At Sarika's house in Mendha where her photo is hung on the pink wall, her younger son, Atish Shinde, 22, says he could see multiple pug marks in the area his mother was killed.

The officials documented the incident post-attack and set up a committee for approval to trap T-81 tiger and her cubs, who were then caught and sent to the Gorewada zoo in Nagpur.



A Tiger occupying a house hold wall in Pilibhit Tiger Reserve, neighbours watch it in awe, PTI

No one to accept: “Tigers involved in conflict end up in the zoo, as no reserve or national park accepts them,” said Dr. Ravikant S. Khobragade. “A tigress kills for the protection of herself and her cubs rather than attacking humans. However, she is aggressive, and her cubs are naive and curious,” he added.

Mendha's Sarpanch (Head Woman), Shradha Gurnule, 26, has been raising concerns around these incidents with the Forest Department. She has asked for guards to go along with the *tendu* plucker group. In her sonorous voice, Gurnule recollects, “Despite

its proximity to the forest, tigers used to be a rare sight in the village until a couple of years ago.”

Somewhere between Chargaon and Mendha in Sindewahi block, on the side of the main road, idols of tigers are installed under thatched canopies. They depict the local ritual practised after people's relatives die in a tiger attack.

There are three idols for Sarika, who was 50 when she died, and her friends. This ritual is sometimes observed so that the deceased rest in peace. “This is for the peace of the village as well,” says Sarika's son Dheeraj.

More trouble in offing: Chandrapur Chief Conservator of Forests, Manikanda Ramanujam said, “the Forest Department is working on a war footing to prevent human-wildlife conflict.

We are interacting with village organizations to create awareness, taking initiatives to reduce the dependence of villagers on the forest, and using technology to monitor the movements of tigers in sensitive villages.”

A forest officer in Chandrapur says that in five years the conflict is only going to increase if appropriate steps are not taken. “Earlier, attacks used to happen mostly in the summer, but now they have extended to the entire

year,” he says. Currently, the Brahmapuri division hosts the highest number of cubs at 67; sub-adults at 16; and females at 39.

Females responsible: Forest department officials believe most of the attacks are by female tigers and their sub-adults (between 1.5 and 2.5 years), who are pushed to live on the borders of the forest due to territorial fights, mostly among males, but sometime among females too.

“The problem lies in the buffer zone and territorial area where food is low and competition among tigers is high, because of urbanisation and land fragmentation.

The Forest Department has installed 982 camera traps for surveillance, and real-time monitoring to alert villagers. They also say they have 181 Primary Response Teams with 917 members, while joint patrols are conducted to prevent tigers and wildlife from getting electrocuted.

About 4 lakh (0.4 million) people visit Tadoba every month. Although tiger tourism generates local jobs, it also has a negative impact on locals as excessive tourism can disrupt the natural behaviour of tigers.



Maruti Karanshya in Moregaon (Chandrapur) shows the wound on his shoulder caused by a Tiger in Tadoba, Emmanuel Yogini



Shradha Gurnule, Sarpanch (Head Woman) of Mendha village, has appealed to forest department a few times about menace caused by Tigers in Chandrapur, Emmanuel Yogini

HOW MANY TIGERS IN INDIA

The recent estimate of Tiger population in India ranges from a minimum of 3,167 to a maximum of 3,925, with an average of 3,682 – generally given out as the number of tigers.

6.1% growth: While a jump from 1,827 in 1973 to 3,682 in 2022 represents a commendable annual growth rate of 6.1%, the growth in reality was far from linear.

This means that the rate of growth

did not steadily keep on increasing, and there were, in fact, even some dips before the numbers bounced back.

Fall: The estimate in 2006, for instance, was 1,411 – even lower than the 1972 mark!

This decrease from previous estimates actually led to a major overhaul in the way in which things were done, and they have borne fruit as the tiger numbers

have more than doubled in the last two decades.

75% here: An estimated 75% India's tiger population has, in fact, doubled in a decade according to a study through government.

As a result, India is now home to roughly 75% of the global tiger population. Three out of every four tigers in the world are now in India!



What tourists contribute to Tigers, Vinod Singh

NATURE-BASED PRACTICE LONE ANSWER TO LIVE BETTER

By Jonathan Cina

Regenerative Designer & Long-Term Land Stewardship Partner, Living Systems,
Resilient Landscapes & Intentional Communities
In Bitsch, Valais, Switzerland

We keep treating living systems like decoration. Neat. Short. Silent. Dead.

But a shaved landscape is not “clean”. It's a collapsed ecosystem. No flowers means no insects. No insects will mean no birds. No soil life to denote no water retention. No water retention to cause floods, droughts, heat.

Failure we cause: What looks tidy is actually ecological failure. And then we spend millions on: flood protection, biodiversity programs, climate adaptation, soil restoration...to fix the damage mowing creates in the first place.

Wild vegetation is not chaos. It is infrastructure: *Roots rebuild soil*
Plants slow and absorb rain *
Flowers feed pollinators * Green cover cools the land, etc.

This is how resilient systems are built: through cooperation with nature. The regenerative option is cheaper, stronger, self-maintaining and improves every year. Yet we keep choosing biological deserts because they “look managed.”

Look aside: Regeneration often is not about adding new solutions. It is about unlearning the habits that break living systems. Sometimes the most powerful climate action is simple: Stop fighting life. Let it return. That is how landscapes heal.

Sometimes the most radical thing you can do is step outside and look. Not at a screen. Not at a plan. Not at a future scenario. At what is already there. Trees. Slopes. Soil. Patterns. Life quietly organizing itself —

without asking for permission. You don't need to go to a national park or a remote mountain range. A garden, a park, a forest edge, even a neglected corner of a city will do. Nature isn't hidden. We are.

And the real question is not whether nature exists. It is how long it will still exist in this form — and how long we keep accepting total disconnection as “normal”. We talk endlessly about sustainability, resilience, innovation. But most people haven't sat under a tree in months. Haven't walked land slowly enough to notice water paths, wind, shade, succession.

Beyond trees: Most people think regeneration starts with planting trees. It does not. It starts with asking the right questions. Again and again, regenerative projects fail not because of bad intentions or wrong species — but because the foundational questions were never asked. What decides whether a project thrives or collapses is not the planting plan. It's the system



Planting a sapling, is it all?

behind it.

Land is not a hobby. Land is a living asset. When someone works with 5, 10 or 50 hectares, they're not just working with soil. They're dealing with water flows, risk exposure, ecological potential, legal constraints, future yields, and long-term responsibility. And most projects skip the part where these realities are properly understood.

They jump straight to: trees, crops, buildings, concepts. That's like constructing a house without reading the ground it stands on.

Phased ways: Real regenerative design moves in phases: first we read the landscape, then we stabilize water and soil, then we shape access and structure, and only then do we build productive systems. This isn't slow. It's what prevents years of expensive mistakes. Because land developed without understanding: dries out, erodes, underperforms or locks itself into fragile patterns that are hard to reverse.

While land developed with ecological intelligence becomes: more fertile, more resilient, more productive, and more valuable over time. That's the difference between extraction and regeneration. Regeneration is not about doing things faster. It is about doing the right things in the right order. When that happens, land stops being a cost — and starts becoming a living, compounding asset.

Some reminders that still stop me in my tracks: A teaspoon of healthy soil holds more living beings than there are humans on Earth. Not

metaphorically. Literally. A whole civilisation under your feet. Trees don't "stand next to each other." They trade nutrients, send chemical warnings, and share resources through fungal networks.

What is forest: A forest is less a collection of trees and more a shared metabolism. Most flowers don't just look beautiful. They are communication devices — colour, scent, pattern, timing — all tuned to the senses of specific pollinators. And water isn't just "rain."

A living landscape breathes water: plants lift it into the air, cool the climate, build clouds, call the next rain.

Nature is not scenery. It's relationship. And we won't change our systems until we change the story we live inside: So maybe the real question is: Where is the nearest place you can meet nature again — today? Despite all our technology, markets, cities and systems — our entire civilisation still rests on something incredibly fragile: about 15 centimetres of living topsoil and the ability of landscapes to hold rain. That's it.

Remove the soil and food collapses. Break the water cycle and soil



Nature based solutions

disappears. Lose both and everything else follows.

Healthy soil: And yet this is the layer we: pave over erode with poor land use poison with chemicals dry out through deforestation wash away with extreme rainfall.

Then we act surprised when droughts, floods and food insecurity rise at the same time. Soil isn't dirt. It's infrastructure. It stores water. Feeds plants. Cycles carbon. Buffers climate extremes. Supports every food system on Earth.

Healthy soil can hold up to 20 times

more water than degraded soil. Which means fewer floods when it rains hard — and more resilience when it doesn't rain at all.

This is why regeneration always starts from the ground up. Not with tech. Not with policies alone. With living systems. When we rebuild soil, we rebuild: food security, water stability, climate resilience, and ecosystems.

The future isn't built on concrete and control. It's built on life working again. Protect the soil. Restore the water cycle. And everything else becomes possible again.



Managing sewage to turn it into fresh water

TREES or AIR-CONDITIONER WHAT PRIORITY

AC we got

AC we needed



Ezeofor Goodness

Forestry Influencer & Ambassador |
The International Forester |
Conservationist | Climate change
advocate | Researcher |
Entrepreneur | Natural beverage
specialist | Advocate for natural
solution Lagos State, Nigeria

Every year, we install more air
conditioners to escape rising
temperatures.

Yet we continue to lose the world's
most effective natural cooling
system: forests. The image says it
all.

Huge benefits: On one side,
hundreds of air conditioners are
working overtime to make
buildings habitable.

On the other side stands a forest
quietly doing what no machine can
replicate at scale.

Forests do not just absorb carbon.
They regulate temperature, release
moisture into the atmosphere,
create rainfall patterns, reduce heat
islands, protect biodiversity, and
support millions of livelihoods.

As climate change intensifies, our
response cannot be limited to
adapting with more technology
alone.

We must also invest in nature-based
solutions that have been cooling the
Earth long before the first air
conditioner was invented.

Reality: The truth is:

*** Trees are natural air
conditioners.**

*** Forests are climate regulators.**

*** Conservation is climate action.**

While air-conditioner units
consume energy to cool a small
space, healthy forests cool entire
landscapes, communities, and
ecosystems.

The decision-makers: As foresters,
environmental advocates,
policymakers, and citizens, we have
a responsibility to protect and
restore these natural systems.

Ere we reach a point where no
amount of artificial cooling can
compensate for what we have lost.

PHOTO FEATURE

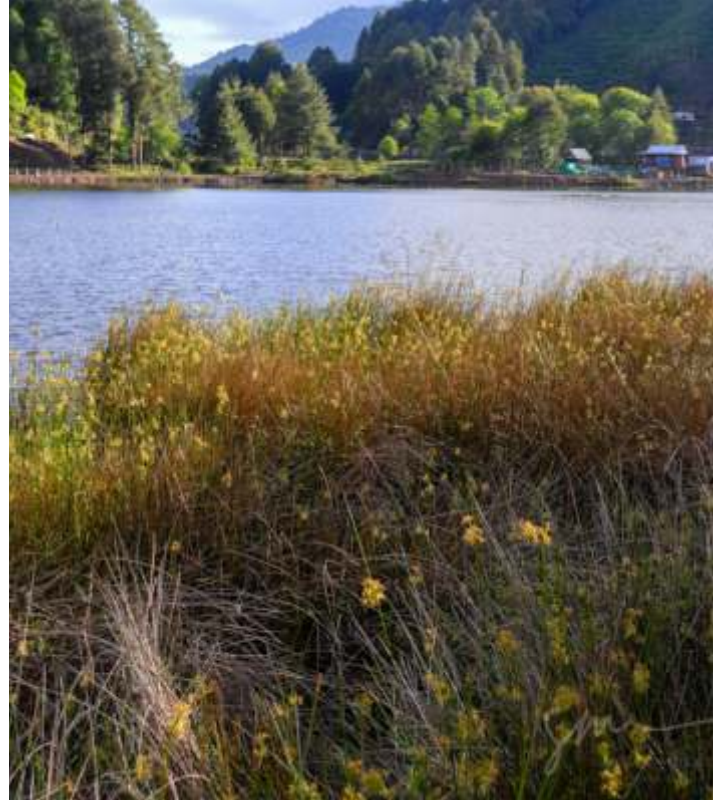
Soumya Mukherjee's frames speak for themselves, wetlands, livelihood, recreation, wilderness conservation...

an amazing example in Ziro region in Arunachal Pradesh, India.

visit.svanir@gmail.com & www.svanir.com



Green meadows, pine forest and a rest house provide backdrop to the lake, Soumya Mukherjee



Such vegetation helps maintain the ecosystem of the lake, Soumya Mukherjee



Play area also created by side of the lake, Soumya Mukherjee



Pine forest borders the lake, Soumya Mukherjee

Welcome to live along with
Butterflies, Birds, under a Green Canopy



The Future City

Close by Mahindra SEZ, off Ajmer Road, Jaipur
A new coin in real estate planning and execution

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Hartley Anderson is a Sydney, Australia resident who, after more than fifty years in sales and marketing roles, has decided it was time to pursue leisure activities. His recent and new activity which is relevant to conservation is beekeeping. He has a strong interest in India.



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Retired as Chairman of Editorial Board (July 25), serving as Editor-emeritus

Ed McCrea is President of Environmental Education and Conservation Global, a US nonprofit conservation organization. Over the last fifty 50 years, he has worked in environmental education and biodiversity conservation at the local, state, national, and international levels.



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Oishimaya Sen Nag is a conservation storyteller, editor, and science communicator based in India. She serves as the Senior Editor of WorldAtlas.com and is also associated with the Bombay Natural History Society. Her current focus is writing about lesser-known species and community-led conservation.



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Amit is an eco-lover based in Dallas, Texas. Believing that a traveler always starts out in his backyard, Amit traveled extensively across India. He kept his passion for nature alive after moving to North America and has traveled extensively around the continent.



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Manoj Sharma worked for the Indian Statistical Service for 10 years and then immigrated to the USA to pursue graduate studies in statistics. Currently he is the Director of Biostatistics at Grail Inc., supporting the company vision of "Detect cancer early, when it can be cured".



Sharma, Satish

Authored 11 books on forest, wildlife management and biodiversity, specialized in ethnobotany and ethnozoology, did PhDs on Plant life of Weaver Birds (1991) and Study of Biodiversity and Ethnobiology of Phulwari WL Sanctuary (2007), former Forest Officer, based at Udaipur.



Sudin

Sudin is based in Denmark, into regenerative farming and nature education project. A postgraduate in Forestry Management, he holds a Permaculture Design Certificate and has experience across silviculture, natural-resource-based-rural-livelihoods domains in India. He believes in the resilience of a biodiverse ecosystem.



Thomas, Rosamma

Rosamma Thomas is a freelance journalist based in Maharashtra, India. She has worked in radio and print journalism. She has only ever lived in cities, despite being a wild creature at heart. She has supported by writing on a unique cause like House Sparrow ex situ breeding initiatives.



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Mamta holds a PhD in Environmental Science and Policy. She has several years of experience working with rural communities in India and East Africa on issues that lie on the intersection of rural livelihoods and natural resources management. Mamta is currently based in Edmonton, Canada where she works as a Research Officer with the provincial Government.