# Fifty Years of Project Tiger!

The author looks back to the beginnings of Project Tiger, its results, and what must be our way forward in the future.

TEXT & IMAGES: KEDAR GORE, THE CORBETT FOUNDATION

A relaxed tigress in Nagarhole Tiger Reserve. Nagarhole-Bandipur-Mudumalai-Waynaad, a part of Nilgiri Biospehere Reserve, has contiguous forests holding a good tiger population.

India's 'Project Tiger', a one-of-its-kind tiger conservation programme established by any country, completed 50 years on 1st April 2023. This programme was launched by the Government of India to halt the dwindling tiger numbers, which by the 1960s had suffered around 96% decline from a population of 40,000 tigers estimated to be inhabiting India's forests at the turn of the 20th century. Decades of indiscriminate hunting and poaching coupled with accelerating habitat loss were the primary reasons for this steep decline in tiger numbers. Scientists and conservationists rung the alarm bells and warned of the extinction of this majestic large cat from India if stern measures were not taken.

The IUCN's 10th General Assembly held in New Delhi in 1969, and which was attended by the then Prime Minister of India Smt. Indira Gandhi, passed a resolution appealing the Government of India to impose a complete ban on the hunting of tigers, take appropriate measures to prevent poaching and encourage tourism in protected areas. Fortunately, this SOS advice was heeded to and in 1970, India imposed a complete ban on the hunting of tigers, initially for five years. This was followed by the enactment of the Wild Life (Protection) Act (WLPA) in 1972 that paved way for the establishment of tiger reserves, among many other measures for wildlife protection and conservation.

WWF's initial funding support, through Operation Tiger Programme, helped the Government of India to launch the 'Project Tiger' in nine protected areas (Bandipur, Corbett, Kanha, Manas, Melghat, Palamau, Ranthambhor, Simlipal and Sunderban), covering an area of around around 9,100 sq.km. in 1973. In the past 50 years, India has declared 53 tiger reserves spread over 75,796 sq.km. in 18 states occupying around 2.3% of India's geographical area.

This is indeed an incredible achievement! The Project Tiger ensured that dedicated funds were allocated towards the protection and management of the tiger reserves, which infused a new vigour and greater efforts in protecting India's National Animal and its habitat. Slowly but steadily, the tiger numbers started increasing and India was rightfully lauded for the success of the Project Tiger.

Tiger reserves are divided into core and buffer zones. The core zones are considered as 'critical tiger habitat' and, as per the WLPA, must be kept inviolate for the purpose of tiger conservation. Buffer zones, that are multiple use areas with human presence, should have habitat connectivity with the core so that the spillover population of tigers can establish themselves in the buffer or use the buffer to move into other forest areas through forest corridors. Making a sanctum sanctorum for tigers in tiger reserves was one of the most challenging tasks for the government in a populous country like India. The villages in core zones had to be voluntarily relocated to create inviolate spaces for tigers. It has taken a great deal of effort and money by the government and the sacrifice of the local communities by giving away their homes to provide a safe home for India's tigers even if they were compensated for this. Out of the 750-odd villages that were present in the core zones, so far around 180 villages having more than 14,500 families have been voluntarily rehabilitated to create critical tiger habitat of around 34,000 sq.km. in all our tiger reserves. Between 2014-15 and 2020-21, around INR 578 crores has been spent for this work but still around 570 villages are inside the core of our tiger reserves.

The provision of additional funds, better equipped staff, scientific management of tiger habitat and awareness about the need to protect tigers, has had a positive effect on tiger population. Relocated village sites and

Local communities depend almost 100% on forests for fuel wood. This puts them at risk of fatal encounter with tigers, leopards and sloth bears.

**Unrestricted livestock grazing is responsible for degradation of the forest habitat and is one of the major causes of human-tiger conflict and subsequent retaliation.**

agricultural lands were managed and preserved as meadows to enhance the populations of herbivores that fed the tigers and other co-predators such as leopards, wild dogs and jackals. As their prey-base increased, so did the tiger numbers.

Although the hunting of tigers was banned, poaching of tigers continued. India's tigers were being killed by poachers and their body parts smuggled through Nepal and Tibet to meet the demand in China and other southeast Asian countries. The decade of 2000, saw the worst ever tiger debacle in India when Sariska (in Rajasthan) and Panna (in Madhya Pradesh) lost all their tigers. The poaching of tigers in Sariska and Panna came to light due to vigilant wildlife researchers. Many other tigers may have met with similar fate but such deaths would have gone unreported in the forest areas outside the core zones and in areas that suffered from insurgency issues. The Sariska episode prompted the Prime Minister of India of set-up a Tiger Task Force to urgently investigate the issues of tiger conservation and suggest methods for its improvement. The recommendations made by this task force led to the establishing of the National Tiger Conservation Authority (NTCA) and adopting a robust scientific methodology for estimating the tiger population.

Earlier tigers were counted using the pugmark method, which was later proved to be erroneous by tiger biologists as it often led to the overestimation of tigers. Following the recommendation of the Tiger Task Force, India adopted the use of camera traps to identify individual tigers and conducted its first All India Tiger Estimation (AITE) in 2006. The AITE results shocked the world that India was left with only about 1,411 tigers, less than the number when Project Tiger was initiated, though we cannot really compare these two estimates due to completely different methodologies used. This resulted in a national uproar and demanded urgent measures to prevent further loss of India's tigers with the involvement of all stakeholders.

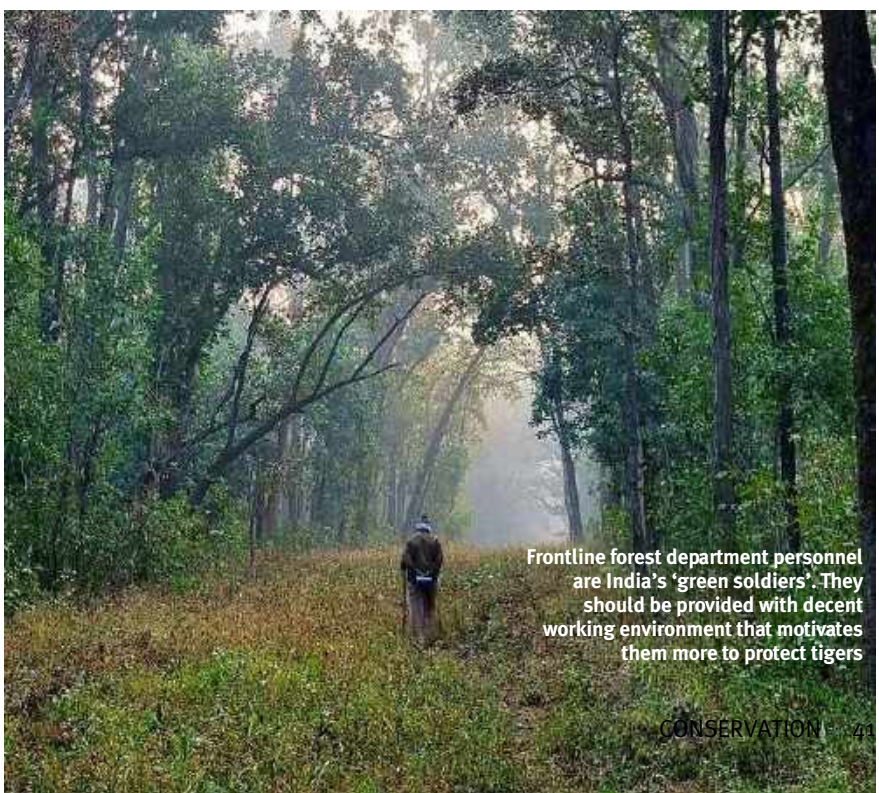
The AITE was repeated every four years after 2006 and India reported a higher number of tigers: 1,706 in 2010, 2,226 in 2014, 2,967 in 2018 and 3,682 in 2022. At the first-ever Indian Conservation Conference (ICCON) 2023, organised at Mysuru to coincide with the 50th anniversary of Project Tiger, the honourable Prime Minister of India made an announcement that India has a minimum of 3,167 tigers as per the AITE-2022. Almost 60% increase in the number of tigers as per the AITE reports from 2006 to 2022 does not necessarily signify the 'success' of Project Tiger, as we all would like it to be. During subsequent AITEs, more areas were included, more sampling efforts undertaken and for AITE-2018 and 2022 the lower age limit

**The lush forests of northeast India have tremendous potential as tiger habitats. Hunting, poaching, jhoom cultivation and unsustainable linear infrastructure projects have severely affected the tiger population here.**

to include tigers in the enumeration was reduced from 1.5 years to one year. It is also significant to note that almost 35-40% of India's tigers are outside the tiger reserves in the adjacent forest divisions and corridors forests.If we consider the tiger estimation figures from 2010 to 2022, the states of Madhya Pradesh, Karnataka, Uttarakhand, Maharashtra and Assam have done well with their tiger conservation efforts. Madhya Pradesh, which was declared the 'tiger state' as per AITE-2022, has reported almost 3 times increase in the numbers of tigers from 2010 to 2022 although the forest area in the state has only marginally increased in the past decade. Karnataka has also managed to keep its forest area intact to around 38,000 sq.km. but has reported a 88% increase in tiger numbers from 2010 to 2022. In Maharashtra, the forest area has decreased from around 61,000 sq.km. in 2005 to around 50,000 sq.km. in 2021 but the tiger numbers have increased by almost 2.5 times over the tiger numbers estimated in 2010. Only the cluster of Tadoba Tiger Reserve and its adjacent forest divisions of Brahmapuri, Chandrapur and Central Chanda harbour minimum of 238 (54%) out of the estimated 444 tiger (as per AITE-2022) across the entire state of Maharashtra. The tiger number of 560 in Uttarakhand have more than doubled from 2010 to 2022 despite the forest cover remaining more or less the same.

Although having good forest cover with extraordinary biodiversity, the northeastern states of Arunachal Pradesh, Mizoram, Nagaland and Manipur have failed to protect tigers largely due to hunting and poaching. This densely forested region shares international boundaries with China, Myanmar and Bangladesh, making tiger protection a difficult task given the high demand for tiger parts in southeast Asia.

Having a large number of tigers in popular tiger reserves may be a great attraction for tourists but can be a nightmare for people living in these landscapes. Buffer zones, being multiple use areas with a mosaic of forests,



**Frontline forest department personnel are India's 'green soldiers'. They should be provided with decent working environment that motivates them more to protect tigers**

**Corbett Tiger Reserve and its surrounding forest divisions offer one of the best tiger habitats in the country.**

villages, agricultural land, revenue and privately-owned areas, are quite often hotspots for human and wildlife negative interactions, such as livestock predation by tigers and leopards, occasional attacks on humans by the large cats and eating of crops by tiger's prey (deer, nilgai and wild boar). Few states have shown promptness in addressing these issues while many others are still dealing with procedural delays, where it is not uncommon for people to adopt retaliatory measures, such as poisoning of livestock carcasses and waterholes, use of live electricity wires and snares to harm tigers and crop-eating animals.

The lack of legitimate and sustainable livelihood opportunities to youth residing in forest areas is another serious issue that needs to be addressed with utmost urgency. The frustration that often creeps in educated or semi-educated youth who lose out on livelihood opportunities to their urban counterparts, is one of the reasons why youth are drawn into antisocial activities including poaching of wildlife. The community angst that may develop due to the lack of timely and effective redressal mechanism in place is understandable, but their acts of harming tigers or any other wildlife to vent their anger is outright illegal. This environment of human-tiger conflict often manifests itself into a support for poaching.

One of the benefits that local communities derive from the increased tiger numbers is employment opportunities brought in due to 'tiger tourism', which has put tiger reserves such as Corbett, Kanha, Bandhavgarh, Ranthambhor, Tadoba, Pench, Nagarhole on the global map. But even in these tourist hotspots, the benefits of tourism reach only to a few selected villages situated around the entry gates but for many villages in buffer and corridor areas that are devoid of these benefits, tiger is a foe and not a friend. To expect the local communities sharing space with tigers to bear the cost of tiger conservation without getting economically benefitted in any way will only be counterproductive. Therefore, it is high time that different models of sustainable wildlife tourism be promoted across the tiger conservation landscapes with community participation and benefit as a top priority at par with tiger conservation. This requires a different approach with local communities becoming the primary beneficiaries and the role of governmental agencies limited to making policies that govern this tourism model.

As India completes 50 years of the Project Tiger, it is time to reflect objectively on what has worked well and what could have been done differently to achieve tiger conservation with minimal human-wildlife negative interactions.

The data presented in all AITE reports tells us that the distribution of tigers in India is quite disproportionate, some areas having very low tiger occupancy despite the availability of good habitat and some areas facing the 'problem of plenty' due to high density of tiger population restricted in smaller forest areas having limited fragmented connectivity with other potential tiger habitats leading to a high degree of human wildlife negative interactions.

The dilemma of how to repopulate the tiger deficit areas with more tigers and how to control tiger population in the tiger surplus areas is an unresolved issue.

We need to re-examine objectively the efforts of manipulating tiger reserve habitats by maintaining meadows to prevent ecological succession to augment the prey base for tigers. Over the years, the availability of such meadows has substantially increased herbivore numbers in several tiger reserves. The increase in wild prey coupled with the easy availability of livestock has hugely benefitted the tiger numbers, resulting in more intra-specific conflict among the tigers and also human-tiger conflict.

The augmented herbivore populations do not necessarily restrict themselves to the meadows but spread out across the forest where they may not find the desired palatable species and reach agricultural fields along the forest fringes. Every tiger habitat has evolved to have an optimum carrying capacity to accommodate tigers based on the availability of the naturally occurring prey species and this must be respected. The hilly terrain of the Western Ghats cannot have the abundance of tigers as is seen in the central Indian landscape. The Koyna-Chandoli-Sindhudurg cluster in the Western Ghats of Maharashtra has not more than 8-10 tigers in around 400 sq.km. We should let nature take its own course for tiger numbers to increase and should not interfere by creating meadows to hasten this process. Instead, offering complete protection and controlling the illegal bushmeat hunting and poaching of prey species can have the desired effect in the long-term. But, quite often, we get caught in the number-game and our zeal to increase the tiger numbers before the next AITE drives our management activities. It is more important to have reduced number of human-wildlife negative interactions than having more and more tigers in a restricted area. Instead of 'many' animals, minimal human-wildlife negative interactions should be a measure of success in wildlife conservation.

Many of the popular tiger reserves have suffered from the proliferation of exotic invasive species such as *Lantana camara*. One of the studies has reported that lantana occupies 154,000 sq.km. of the tiger-range forests in India, thus affecting the natural regeneration of native flora and biodiversity richness of the area. Going forward, restoration of degraded forests by eradicating invasive species should be our topmost priority to ensure tiger reserve habitats are utilized to their by all kinds of life forms — from tigers to centipedes to fungi.

With the human population exploding, can the human-tiger coexistence ever be peaceful?

Having over 75% of the world's wild tigers, India is the undisputed global leader in tiger conservation and we must leave no stone unturned to live up to the raised expectations of other tiger range countries and the rest of the world. Our actions must be in tune with our commitment to protecting tigers and maintaining the integrity of its habitat for posterity. With a huge human population, India faces intense pressure to implement ambitious projects of linear infrastructure, mining, dams, urban development at the cost of the precious forests that are not just home to tigers but also provide ecosystem services that are essential for the survival of mankind. India should protect its tigers and other wildlife species by bringing in stronger and stricter laws and not by diluting the provisions of our existing laws. However, in July 2023, just few days before the 'Global Tiger Day', the Lok Sabha has passed the Forest (Conservation) Amendment Bill 2023 despite serious concerns raised by many Parliamentarians, conservationists, scientists and citizens. The provisions of this Bill will dilute the Forest (Conservation) Act, 1980, which has been responsible for protecting India's forests and would spell doom for forests and wildlife, including tigers, outside India's Protected Area network given that almost 40% of tigers survive outside these areas. India's economic policies and development for the next 50 years should be built on strong ecological foundations that ensure a secure future for tigers, their prey, and their forests.

If this happens, it would be the real success of Project Tiger.

**The railway line passing through Bandhavgarh-Sanjay-Dubri Corridor, one of the important tiger habitats and crucial in tiger dispersal in the Central Indian Landscape.**