40%

Proportion of melanistic tigers had reached nearly 40 per cent of the total number in Similipal which was alarming

How Similipal scripted India's most Remarkable tiger revival

SUSANTA NANDA

Former PCCF Wildlife & CWLW, Odisha

THERE are conservation decisions that are taken in comfort, and there are those decided at the edge of history. Similipal's tiger translocation belonged to the second kind. It was not a routine wildlife exercise. It was an intervention undertaken under the shadow of doubt, memory and criticism. The failed Satkosia tiger translocation of 2018 had made skepticism inevitable. Every proposal, permission and movement of a tiger carried the burden of that past. Convincing the Government of India and the National Tiger Conservation Authority (NTCA) that Odisha had the capacity, expertise and resolve to attempt another translocation was itself a formidable challenge.

But Similipal could not be allowed to drift silently towards genetic danger. Its celebrated melanistic tigers, admired across the world for their rare beauty, were also carrying a hidden warning. Beneath this wonder lay vulnerability of genetic isolation. Generation after generation, the gene pool had turned inward. The very trait that made them extraordinary also signalled a looming risk of inbreeding and future decline. When the proportion of melanistic tigers reached alarming levels of nearly 40 per cent of the total, the message from science was unmistakable: Without fresh genes, Similipal's tiger population could face long-term genetic weakening, however magnificent it appeared from outside. The population had become distinctive but distinctiveness without genetic exchange can become a trap.

It was in this difficult background that Odisha took a bold decision. The translocation of tigresses Jamuna and Zeenat from the Tadoba-Andhari landscape was not merely an administrative approval or a wildlife operation. It was a deliberate act of genetic rescue. It was a decision to trust science over fear, courage over hesitation and the future over temporary criticism. The translocation programme of 2024 was therefore both bold and necessary. Jamuna and Zeenat were brought from Maharashtra's Tadoba-Andhari Tiger Reserve (TATR) with a clear objective to introduce fresh genetic material into Similipal and strengthen the long-term future of its tiger population. This was science in action, supported by planning, monitoring and institutional courage.

Initially, events appeared to unfold according to plan. Jamuna, the first tigress to be released, soon embarked on extensive exploratory movements across the wider Similipal landscape. She eventually dispersed towards Kuldiha Wildlife Sanctuary through the Similipal-Hadgarh-Kuldiha corridor. While some observers viewed her movements with concern, wildlife managers recognized it as a natural part of a young tigress's search for territory and breeding opportunities. Rather than intervene unnecessarily, officials adopted a patient approach, allowing natural dispersal to continue while maintaining constant monitoring. Today, Jamuna remains healthy and active within the greater Similipal landscape, particularly around the Kuldiha region, where she continues her search for a permanent territory and a suitable mate.

It was Zeenat, however, who transformed the conservation programme into a remarkable story of persistence and adaptive management. Soon after her release, she embarked on an extraordinary journey that carried her across forests, villages and administrative boundaries through Jharkhand and later into West Bengal. For weeks, forest departments from three states coordinated efforts to track her movements. Every passing day raised fresh questions. Would she continue moving indefinitely? Would she come into conflict with local communities? Had the translocation experiment failed? As uncertainty grew, criticism followed. Yet conservation success often demands patience in the face of unpredictability. After an intensive operation, Zeenat was eventually tranquilised and brought back. What followed became one of the most important lessons of the entire project. Instead of rushing her back into the wild, wildlife managers fundamentally revised their strategy. A larger enclosure was established, observation periods extended, natural prey was introduced and human interference minimised. The focus shifted from relocation to adaptive management, with scientists carefully studying Zeenat's behaviour, hunting ability, stress levels and overall adaptation to her new surroundings.

The results were encouraging. Zeenat hunted naturally, remained wary of humans and displayed all the instincts expected of a truly wild tiger.

Scientists monitoring the programme concluded that she had retained her wild character despite spending months under managed observation. Gradually, confidence returned. Then came the breakthrough. As Zeenat entered oestrus, a dominant melanistic male tiger known as T-12 began approaching her enclosure. Recognising a rare opportunity, wildlife managers released her back into the wild under carefully monitored conditions. Soon afterwards, mating between the two tigers was recorded. But nature had other programme. No litters were born.

And now, the conservation initiative has begun to speak from the forest itself. Zeenat has given birth to four cubs. These cubs carry the dominant Tadoba genetic line through their mother and the recessive Similipal melanistic genes of their father, likely male T-37 or T-41. In them, two great tiger lineages have met. In them, the first visible sign of genetic renewal has appeared. However small this beginning may seem, it is historic. The tigress has settled. New genes have entered Similipal. The first chapter of genetic rescue has been written. These cubs are not just four additions to India's tiger numbers. They are living symbols of renewal. They represent the meeting of fresh Tadoba genes with Similipal's rare genetic legacy. They carry the hope that an isolated population can be strengthened before it is too late. They prove that translocation, when guided by science, patience and field skill, can become a powerful conservation tool.

This achievement belongs to many — the frontline staff who tracked signals in difficult terrain, the veterinarians who ensured safe handling, the biologists who interpreted behaviour, the managers who took difficult decisions and the government that stood behind the programme. Without institutional support, such a daring intervention could not have moved beyond paper.

NEW STUDY

WARMING WINTERS

A threat to India's wheat production

JITENDRA CHOUBEY @ New Delhi

THE rise in both day and night temperatures, particularly during winter, along with more frequent terminal heat stress during reproductive stages, are disrupting the wheat growth cycle across five major wheat-producing states, contributing around 85% of India's total public wheat procurement, reveals a new study.

This disruption is resulting in reduced wheat growth, grain quality and yield stability in country's wheat heartland. The impacts are further intensified by erratic rainfall, humidity and post-harvest losses, especially during harvest and storage periods. Projections consistently indicate major yield declines across the Indo-Gangetic Plain if current trends continue.

The study, titled 'Wheat under stress: Climate change, rising heat, and adaptation pathways in India's major wheat-growing states,' finds that country's wheat heartland - Punjab and Haryana - is heating much faster than other regions, with night-time temperatures rising more rapidly than daytime temperatures.

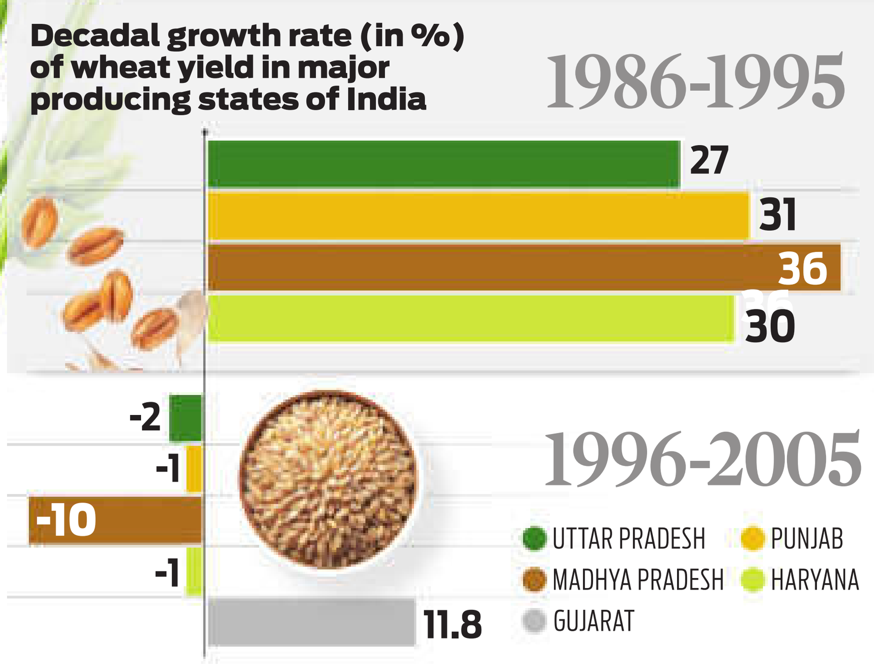
This trend is negatively impacting wheat productivity in the country. Wheat requires a maximum temperature of up to 29° C and a minimum temperature of 8° C in different stages from the vegetative stage to the maturity stage in different states.

India has been visibly experiencing wheat production stress since 2022. In February 2022, Russia invaded Ukraine, both major exporters of wheat, triggering a global food crisis. In the middle of it, Prime Minister Narendra Modi announced plans to feed the world as India's wheat outlook was quite positive and it was the world's second-largest producer after China. But soon, the dream of becoming a global exporter was shattered by the early onset of heat waves (Feb-March), which severely impacted India's wheat production.

As a result, India restricted wheat exports in May 2022. In 2023, the development of El Niño further stressed wheat production and India continued its export restrictions. Over the next two years, India will struggle to cope with the loss due to rising temperatures and their negative impact on wheat production. Finally, riding on above-normal monsoonal rainfall in 2025 which helped retain ample moisture in the soil, the government claimed bumper wheat production. India removed its wheat export restrictions and for the first time in the past four years, crossed its procurement target.

In May 2026, India procured 350 lakh metric tonnes (LMT) of wheat against a target of 345 LMT for its public distribution system. However, the threat remained looming. The Indian Meteorological Department (IMD) and global meteorological agencies predicted the strongest El Niño in the past 150 years. Moreover, the IMD has already predicted the possibility of deficient rainfall. Next year, the country may again witness suppressed wheat production due to lower soil moisture and unusually high temperatures.

A NEW STUDY WARNS THAT SHORTER AND WARMER WINTERS HAVE DIRECT EFFECTS ON WHEAT PRODUCTION IN INDIA



IN MADHYA PRADESH

'Cheetah Chaupals' build buzz ahead of big cats' arrival at VDTR

ANURAAG SINGH @ Bhopal

AS Madhya Pradesh prepares for arrival of cheetahs at the Veerangana Durgavati Tiger Reserve (VDTR), the park management has devised an out-of-the-box idea for creating awareness in villages through 'Cheetah Chaupals.'

The campaign aims at familiarising local communities, especially children, with the world's fastest land animal before it reaches VDTR which will be the first the tiger reserve to get cheetahs.

The evening chaupals, being organised since May 31 in villages located in the core and buffer zones of the reserve, are drawing 50 to 150 children daily. Through documentaries, interactive presentations and question-answer sessions, forest officials are trying to dispel fears surrounding cheetahs and explain how the species could benefit the region.

The outreach initiative has also created a unique connection between Prime Minister Narendra Modi's parliamentary constituency Varanasi and MP's largest tiger reserve. Artisans from Varanasi's Bhullanpur area have crafted colourful cheetah-faced wooden pencils which are being distributed among children attending the chaupals.

"Cheetah-centric pencils crafted by artisans in Kashi and cheetah-themed face masks sourced from Bhopal are among the most popular gifts among children," divisional forest officer of Veerangana Durgavati Tiger Reserve Rajnish Kumar Singh told *TNIE*.

According to him, the first phase of the campaign has already covered over 10 villages and reached nearly 1,500 children.

Cheetah-centric pencils crafted by artisans in Kashi and cheetah-themed face masks sourced from Bhopal are among the most popular gifts among children

Rajnish Kumar Singh, divisional forest officer, VDTR

80%

Sources associated with the project said around 80 per cent of the infrastructure work for housing cheetahs at VDTR has been completed