

COLLARING AS A CONSERVATION TOOL: AIDING ELEPHANT RECOVERY IN MADHYA PRADESH

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Elephants, the largest terrestrial mammals and mega-herbivores, are significant for their size and for their indispensable ecological role in shaping forest ecosystems. These gentle giants contribute to seed dispersal, maintain ecological balance, and create habitats for other wildlife species. By trampling vegetation and uprooting trees, elephants help create clear ground that allows new plant growth, fostering biodiversity. Their ecological importance as iconic keystone species underscores the need for their protection and conservation.

The Historical Decline and Recent Revival in Madhya Pradesh

Historically, elephants were distributed in diverse landscapes across India, from dense forests to grasslands and river valleys, including the verdant forests of Madhya Pradesh. These landscapes not only provided shelter but also served as critical corridors for elephant movement. However, their range dramatically shrank with habitat loss, urbanisation, and extensive infrastructure development such as highways, railways, and dams. Human encroachment on forests and agricultural expansion further exacerbated the problem, leaving elephant populations fragmented and vulnerable. Madhya Pradesh, once a thriving habitat for elephants, witnessed their local extinction centuries ago due to excessive hunting and deforestation.

Yet, a remarkable phenomenon has surfaced in recent years: elephants have begun to migrate from neighbouring Chhattisgarh into Madhya Pradesh, rekindling the potential for their return to this central Indian state.

Since 2018, the Bandhavgarh Tiger Reserve (BTR) has documented increasing elephant movements, marking a significant ecological event. These migrations are believed to be driven by a combination of factors, including habitat degradation in their native ranges, competition for resources, and natural exploratory behaviour.

Addressing Human-Elephant Conflict

While the resurgence of elephants in Madhya Pradesh is ecologically significant, it has also led to complex challenges. Human-elephant conflict (HEC) has emerged as a pressing concern, primarily in areas where agricultural fields and human settlements border forested regions. Elephants, driven by their need for food and water, often venture into farms, causing significant crop damage and occasionally, human casualties. Such incidents escalate tensions between local communities and wildlife conservation efforts, necessitating immediate and innovative solutions.

In response to these challenges, the BTR team undertook a groundbreaking initiative: capturing and relocating a wild elephant to the Aaman-nala elephant camp on March 2, 2024. This elephant, which had repeatedly strayed into human settlements, was later equipped with a GPS/VHF collar on November 20, 2024. This marked the first-ever collaring of a wild elephant in Madhya Pradesh, setting a precedent for wildlife management in the region.

A second elephant, involved in similar conflict incidents, was captured on November 3, 2024, and similarly collared on December 9, 2024.

These operations were executed with technical support from the Wildlife Institute of India (WII), Wildlife Conservation Trust (WCT), and WWF, showcasing a collaborative approach to conservation. The collaring operations aimed to monitor the elephants' movements in real time, enabling forest officials to anticipate and mitigate potential conflicts. This real-time information is invaluable for understanding their habitat preferences, feeding behaviour, and movement patterns. It will also inform how elephants use forest corridors, their seasonal migration patterns, and their interactions with human-dominated landscapes; this information could form the basis for making conservation-oriented decisions. These insights gained from these monitoring efforts inform habitat management and conflict mitigation plans. Additionally, this data helps identify critical habitats and corridors that require protection or restoration, ensuring the long-term survival of elephants in Madhya Pradesh.

Beyond conflict mitigation, such monitoring also contributes to ecological research. By studying elephant behaviour and habitat use, researchers can better understand the ecological roles these animals play in Madhya Pradesh's landscapes. This knowledge is essential for formulating policies that balance conservation goals with human development needs.

A Vision for the Future

The resurgence of elephants in Madhya Pradesh is not merely an ecological event; it is a testament to the resilience of nature and the power of human ingenuity in wildlife conservation. As these megaherbivores are re-occupying their ancestral habitats, they symbolize conservation anticipation, balance, and the enduring bond between humans and elephants. By safeguarding elephants, we ensure the health of entire ecosystems, benefiting not only wildlife but also future generations of humans.



Drug preparation for immobilisation



Administering drugs to immobilise the elephant



Blind folding and collaring the elephant



Group photograph of the team



Elephant equipped with a GPS/VHF collar on 20th November 2024



Elephant equipped with a GPS/VHF collar on 9th December 2024



Checking the radio-collar frequency and its VHF range of collared elephant

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Photos: Gorati Arun Kumar.