



MILESTONE IN THE MEGA-HERBIVORE CONSERVATION :

The Gaur Reintroduction In Sanjay Tiger Reserve

- Parag Nigam

As a part of the collaborative initiative between Wildlife Institute of India and Madhya Pradesh Forest Department, a gaur (*Bos gaurus gaurus*) re-introduction plan 2023-28 was developed in early 2023. It envisaged the reintroduction of 50 gaurs in Sanjay Tiger Reserve. As Phase I of the project, a total of 28 gaurs from Kanha (during 1st and 7th June, 2023) and 16 gaurs from Satpura Tiger Reserve (between 26th and 29th June, 2023) were successfully captured and translocated. With culmination of Phase I in June 2023, the remaining six gaurs were captured from Kanha Tiger Reserve during April 2024 and translocated to Sanjay Tiger Reserve completing the reintroduction of a population of 50 gaurs within a period of nine months.

This fieldwork represented a multifaceted triumph for conservation.

The field operation was initiated in Kanha Tiger Reserve from 1st April, 2024 with the team of Park managers, veterinarians, biologists, and the front-line staff, initiating necessary preparations for the captures scheduled on 8th and 9th April 2024. These included identifying herds and individuals chosen for capture, acclimating captive elephants with the gaur herds to allow for closer proximity and ease of darting, arranging transport vehicles, conducting regular mock drills of animal weighing, carrying loads over distances and loading them onto trucks.

It also included ensuring the availability of appropriate drugs, medicaments, equipment and support systems, as well as clearly defining roles and responsibilities of the personnel involved in capture operation. Efforts were simultaneously made towards the preparation of a soft-release enclosure at Sanjay Tige Reserve suitable for holding animals during the initial phase.

Once the preparations were made, the field operation was initiated on 8th April 2024. The day started with the team assembling at the focal point at Kisli Forest rest house and initiating the final checks and preparations required for the operation. After carrying out mock drills and ensuring that all the arrangements were in place, the field operation started in the afternoon. Weather conditions were conducive, and decision was taken to go ahead with the captures. The monitoring team reported a herd of 12 individuals (part of the larger herd of 18 individuals) near the Kisli road. Upon receiving the information, the core team deployed the captive elephants to the location where the gaur herd had been sighted. The herd was observed grazing comfortably in the open Kisli meadow alongside Barasingha and Chital in the company of egrets, hopping over these animals and enjoying the afternoon insect meal.

The darting team reached the site and approached the gaur herd on elephant back. Captive elephants were successful in gently moving the herd towards an open area. A seemingly healthy individual was identified based on its distinct features: (i) a young adult bull whose horns were placed wider apart on the poll, extending outwards first before curving inwards with the sharps tips pointing upwards; (ii) muscular and elevated dorsal ridge, (iii) a dark body coat, and (iv) the size. The young bull was targeted for darting which was carried out in a manner that the animal was subjected to minimal stress. The animal was darted using a drug mixture of Thiafentanil (narcotic) and Azaperone (a short acting tranquilizer). The animal came down on sternal recumbency within three minutes of darting. The animal was approached, blindfolded, evaluated for physiological parameters, weighed, collared, and shifted onto the stretcher for carrying to the transport container positioned on the road head. Moving the gentle giant onto a stretcher and then transporting it to the truck was truly a commanding task. A team of 16 strong frontline staff duly trained in the procedure during mock drills made the whole exercise possible.



Once the animal was loaded onto the transport container, efforts were made to ensure that the animal was positioned on sternal recumbency and administered intermediate (Haloperidol) and long acting tranquilizers (Perphenazine enanthate). These drugs provided tranquilization effect throughout transportation and acclimatization at the release site. The animal was subsequently revived using Naltrexone hydrochloride and it took about two minutes for the animal to recover and stand upright.

While the animal was loaded onto the truck, the captive elephants managed to keep the herd intact and guarded. The team rushed again towards the gaur herd, but the weather suddenly changed with heavy clouds covering the sky along with lightning, thunderstorms and heavy downpour that made the conditions quite challenging. The team waited out in the open for almost 30 minutes for the downpour to settle. The gaur herd also took shelter under a tree. A short open window appeared to our pleasant surprise through the ominous clouds and without any delay, a young adult cow was darted, and similar procedures were carried out resulting in having two animals in the container. The sky gradually cleared and although daylight was still available, it was decided to schedule further captures for the next day, as the entire team was drenched and elephant *howdah* (saddle) was wet making the harness ropes tight and uncomfortable for the elephants.

After ensuring that the captured animals were comfortable and there was enough supplemental fodder in the container, the journey was initiated. A team constituting of field officers, veterinary professionals and support staff accompanied the animals. The journey of about 400 kms to Sanjay TR took almost 12 hours. Multiple stoppages were made on the way to check animal fitness, provision fodder and water. The team reached Sanjay TR in the morning and the animals were released in the soft release enclosure which was specially made to contain the animals for the initial period. This enclosure served as a transitional space where the gaur could adjust behaviourally and acclimatize to the new environment. Furthermore, it allowed the animals to recover from the effects of tranquilizers. Holding herding animals in soft release enclosures helps in the development of cohesiveness and herd formation, which is important once the animals are released in the open forest.

Similar field capture operation was continued on 9th April, 2024 in Kanha and three adult cows and one bull were successfully captured and loaded onto the transport container within a short period of 3 hours. Two transport trucks were used for carrying these four animals. As carried out previously, the transport team comprising of field officers, senior veterinarians and support staff accompanied the animals. As the journey took place during the day, special measures were taken to keep the animals comfortable throughout the long journey. The evening brought with it pleasant weather due to the rain, making the journey quite comfortable. The transport trucks reached Domarpat, the location of the soft release enclosure, during wee morning hours and the animals were released inside the enclosure. Every animal exited the vehicle comfortably and rushed into the thicket of bamboo which was present within the enclosure. The project research team and the identified monitoring staff of Sanjay TR were assigned with the monitoring duties of the newly supplemented gaur.

The sweet chirping of birds, the cool, bracing weather, and the refreshing morning breeze along with the sunrise illuminating the gaur comfortably grazing as a herd in the open area of the enclosure, was a sight to behold. It was a delight to watch the herd in their new home.



Overall, the successful capture and translocation of 50 gaurs in Sanjay National Park represents a triumph of collaborative conservation efforts, highlighting the potential for positive change when professionals work together to protect our planet's biodiversity. This effort is a testimony to the collective efforts of forest officials, scientists, experienced veterinarians, and wildlife experts, who worked tirelessly to ensure the safety and well-being of the gaurs throughout the process.

The successful establishment of the existing gaur in Sanjay TR reintroduced during June 2023 and the addition of these six gaurs during April 2024 provides hope that Sanjay Tiger Reserve would become a stronghold of this mega-herbivore in future and re-establish the linkages with other adjoining reserves.

About the Author:

Parag Nigam started his research career in 1995 with his master's degree research on livestock diseases and their impact on animal health. Later, he served in the Remount & Veterinary Corps of the Indian Army in the Field Veterinary Hospital and Central Military Veterinary Laboratory, Meerut until 2002. His interest lies in studying diseases in wild populations and managing wild animals in distress. He provides teaching and training inputs in the area of wildlife health management; immobilization and restraint of wild animals; and health management of wild animals in captivity. He has carried out a number of wildlife rescue and rehabilitation operations for various states of the country.

