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Rajasthan's Treasure: Preserving the Majestic Great Indian Bustard through Innovative Conservation Efforts

Karishma Choudhary and Vinod Kumar Palsaniya
Livestock Production and Management (LPM)
CVAS, Navania, Vallabhnagar, Udaipur (RAJUVAS)
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The Great Indian Bustard (GIB), also known as Godavan locally, is the state bird of Rajasthan, India. The bird is known as the "flagship grassland species" and is said to signify the ecology's health. It is the largest native bird of the Indian subcontinent that can fly. Gujarat and Rajasthan are the states that are native to the Great Indian Bustard. Maharashtra, Karnataka, and Andhra Pradesh are home to a small portion of its population. Rajasthan State in India holds the largest population and prime hope for saving the species (Dutta et al. 2011).

According to the International Union for Conservation of Nature (IUCN), the feathered creature is critically endangered because it has been hunted and experienced habitat loss due to extensive changes in agricultural practices and other factors (BirdLife International, 2018).

Status of GIB in India and Rajasthan

The GIB population has fallen by 90% in the last 50 years. The population size was 1260 in 1969, 745 in 1978, 600 in 2000, 250 in 2011, and less than 150 in 2019 in India. GIBs are less than 200 in India, mainly in Rajasthan and Gujarat. Great Indian Bustard is the flagship species with a population ranging from 35 to 40 and is mainly concentrated in the Sudashri landscape area of DNP Sanctuary, which is located in the northern part of Rajasthan. There is another satellite called Naath ji ka tanka- Ramdeora Closure having a population of 5 to 10 individuals (Project Great Indian Bustard, 2024).

Current Artificial Insemination in GIB

A baby Great Indian bustard was born via artificial insemination (AI) at the Sudasari Great Indian Bustard Breeding Centre in Jaisalmer district of Rajasthan. This is a significant milestone, as experts say India is the first country in the world to successfully breed this critically endangered species through this method. The AI process offers hope for the survival of the great Indian bustard, a bird teetering on the edge of extinction.

A similar technique was tested on the houbara bustard by the International Fund for Houbara Conservation (IFHC) in Abu Dhabi, where it proved successful. Last year, scientists from the Wildlife Institute of India (WII) traveled to Abu Dhabi to learn this technique. After their training, efforts began to apply a similar procedure and experiment to the great Indian bustard.

At the Ramdevra Great Indian Bustard Breeding Centre, a male great Indian bustard named Suda was 2 years old and trained for artificial mating, and his sperm was collected. The sperm was then transferred to the breeding centre at Sudasari, where a female great Indian bustard named Tony that 5-year-old, was artificially inseminated on September 20, 2024.

On September 24, 2024, Tony laid an egg, which was carefully monitored by scientists. Finally, on October 16, a healthy chick hatched, marking a major success in the conservation efforts. After a week of observation and medical tests, the chick has been confirmed to be in good health.

This technique, known as artificial insemination, involves training a male great Indian bustard to produce sperm without mating by placing an artificial female in front of it. The entire training process took approximately eight months. The use of artificial insemination has resulted in the birth of a healthy chick, a historic step towards increasing the declining population of the Great Indian Bustard and saving it from extinction.

Currently, the population of great Indian bustards in Jaisalmer stands at 173, with 128 of these majestic birds roaming the wild and 45 housed in breeding centres. Jaisalmer's Desert National Park is regarded as a key sanctuary for the species, with around 70 enclosures providing favorable conditions for their breeding. In the park’s hatchery centre, eggs are being scientifically incubated, leading to the production of new chicks. This achievement brings renewed hope to conservationists as they strive to save one of India's most iconic but endangered birds.

Conclusion

The successful artificial insemination and hatching of a Great Indian Bustard chick is a significant milestone in the conservation efforts for this critically endangered species. With less than 200 individuals remaining, this breakthrough provides hope for increasing the population and preventing the extinction of this iconic bird. Continued research and implementation of innovative techniques like AI will be crucial in safeguarding the future of the Great Indian Bustard and restoring its population to sustainable levels across its native habitats in India.

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