

GREEN ENERGY PROJECTS THREATEN THE LAST REFUGES OF THE ENDANGERED GREAT INDIAN BUSTARD

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

A bustard flies high near wind turbines and power lines in the Pokhran desert area in Rajasthan.
| Photo Credit: [Devesh Gadhvi](#)

As you approach Pokhran, the skyline is taken over by giants. They are wind turbines and lofty steel towers that stand tall against the yellow sand dunes, making the landscape look like a dystopian Lego town. The tops of the towers are painted a menacing red; they stand tall as if holding hands with the power lines.

Close to Pokhran, where India once flexed its nuclear muscle, a new power struggle is emerging in the sand dunes of Rajasthan. This one is between the people who live there and the power companies that promise clean and green energy to the nation. Caught in this crossfire is a critically endangered bird that has been on a collision course with the power companies' high tension wires. The Wildlife Institute of India (WII) estimates that about 15% of the great Indian bustard (GIB) population dies each year due to collision with power lines, making this the most significant threat to the majestic bird today.

The bustard has had a chequered history; its unusual name stopped it from being declared the 'national bird' of India. Once found in large numbers across the country, Rajasthan is now home to the single largest viable population of the species. But the State has other plans for the bustard's habitat — an array of solar and wind energy projects. A WII report from 2020 minced no words: 'unless power line mortality is mitigated urgently, extinction of GIBs is certain', it said. And that led to a Supreme Court order in April 2021 mandating that all power lines in both the 'potential' and the 'priority' habitats of the bird be laid underground. This was a path-breaking order, as it included not just the small area of the Desert National Park in Jaisalmer, but also encompassed a much larger tract of the last remaining suitable habitat, as this would ensure the long-term conservation of the species and the successful reintroduction of captive-bred birds in the future.

Near Pokhran, I meet Sumer Singh Bhati, who owns more than 300 camels. With his straw hat and camera strapped around his neck, he could pass off as an enthusiastic tour guide. What he is enthusiastic about is birds. These days, however, his phone card is full of images of dead birds that have crashed against the power lines. Bhati says he has become a champion for the GIB in the last five years; the plight of the dead birds moved him. He's also upset that the *Degray Oran* or the sacred grove — said to be over 600 years old — used by his community for grazing their livestock is now being used by the power companies to install power lines. What angered the people of his village most was the destruction of the trees they had preserved for generations. The National Green Tribunal prohibited the laying of power lines in the sacred grove, but this did not stop the violations.

Colossal towers

We are standing in the blazing heat with the colossal towers above our heads, in the heart of the *Oran*, when a car pulls up from one of the power companies. The men want to know why we are here. Since the order from the Supreme Court, everyone is nervous. They assess us from a distance, make enquiries from our driver, and leave. We walk further, and I am curious about the

colourful discs, or 'bird diverters', which give a rather aesthetic look to the deathly wires. Diverters are essentially bright plastic discs that appear like Christmas lights and are meant to alert birds in flight from a distance to avoid collision. But there is debate in the scientific community about their efficacy for bustards.

The sun is now so bright it is impossible to look ahead with the naked eye. We continue walking; up ahead, a group of four men are hard at work; they say they are migrants from Bihar employed as daily wage workers by the renewable power companies. They have been hired to install diverters every six feet. Like cowboys, they suspend themselves from the hanging wires, pull themselves up 20-30 feet above the ground to tie the diverters; there is no umbrella, no shade, no tree to protect them from the blistering heat. Not even a safety net in case they fall. The work continues at a frenetic pace, perhaps since the Supreme Court has directed that till the lines are taken underground, these diverters must be installed. The workers have a long day ahead.

Conflicting reports

A short breeze makes the deflectors sway like wind chimes, but Bhati says the birds are still colliding with the wires. His observation is backed by scientists. Devesh Gadhvi, an ecologist, conservationist, and member of the Supreme Court-appointed committee that will decide the feasibility of transmission lines to be taken underground, says: "Meta analysis shows diverters reduce mortality by 50% for birds in general, but the reduction is lower for bustards, according to recent evidence."

Subrahmanyam Pulipaka, CEO of the National Solar Energy Federation of India, disagrees. He wants to present research to the Supreme Court committee that diverters will work. "We have reviewed experiences from some 40 countries, and in some of these, birds from the bustard family were affected too, for instance in Spain, Namibia and Hungary. These countries have installed bird diverters, line markers, and UV paint on the transmission lines to mitigate collision, and the results were very promising. In some cases, there was a reduction in the mortality rate by as much as 95%," he says.

Sumit Dookia, an ecologist, who has been working in the desert State, believes the local people are central to conserving the species. Dookia recalls his first sighting of the GIB with Asad Rahmani, one of the most vocal advocates for saving this precious bird. "In 2002, I got an opportunity to join Dr. Rahmani and I saw my first GIB, a pair, in Bikaner district." For Dookia, that moment was life-changing, and he started mobilising people to support GIB conservation. His efforts paid off — there are now many GIB mascots in Rajasthan who have come forward to help or report violations of the court orders. But violations continue, and the potential GIB habitat is huge, so monitoring and compliance with various court orders has become a cat-and-mouse game between the villagers and the companies.

Tracing accountability

As we walk around, we notice an earthmover that has been deployed to dig up the ground for new power lines. When we ask the men at work, they say they are daily wage workers but confirm they are digging the land for new power lines. Since no one is a full-time employee, tracing back accountability to any company is challenging.

By late afternoon, we make our way towards a grassland patch where we are told there may be some chance of catching a glimpse of the GIB. Our tired eyes get some visual relief from the hundreds of spiny-tailed lizards that pop up from the ground for a few seconds or scurry across the grass.

Just as the last of the sun's rays hit the grassland, we get lucky. Up ahead in the distance is a male bird. It's only when you see the bustard in the wild that you realise what the fuss is all about. There is something royal about the bird as it surveys its territory with its head held high. If this was a Disney musical, I can imagine the bird bursting into song, holding its white breeches. To be in the presence of this grand old bird of the agro-pastoral landscape makes you deeply conscious of its value, not just as a mascot of the grasslands but as a crucial piece in the eco-jigsaw. Our role is to ensure it is not wiped off the face of the planet. Perhaps the GIB needs a smart marketing strategy, something that endears it to tourists, like the tiger's.

Ecological footprint

Meanwhile, emboldened by the State government, the power companies are working on ways to avoid implementing the court order. Pulipaka admits there are problems. "Cost is just one of the factors. It is a globally established fact that undergrounding is significantly expensive, especially for high voltage lines."

The threat in this habitat is not the only such green energy vs. wildlife conflict in the country. Koyna Wildlife Sanctuary in Maharashtra, for instance, has one of the largest wind farms, which has impacted biodiversity, specifically the behavioural activities of the fan-throated lizard. Wind farms in the Gulf of Khambhat in Gujarat threaten to impact marine biodiversity. Andhra Lake Wind Farm, close to Bhimashankar Wildlife Sanctuary in Maharashtra, has led to the felling of trees and diversion of forest land. This, in turn, has deprived local people of access to common resources.

Thus far, it's fossil fuel companies that have had the worst environmental records — not just in terms of pollution but also land grabs and violation of human rights. Renewable energy companies have promoted themselves as the 'noble' alternative, providing clean energy, free from carbon emissions. As India turns to such projects on a large scale, one must remember that while they may be clean, they still have an ecological footprint. And if they want to retain their 'clean' image, they have to control their environmental impact.

The predicament of the bustard gives them a chance to rise to the occasion. Let them take their transmission lines underground so that the great bird soars safely again.

The writer is an award-winning journalist and author of Rewilding in India.

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