Are missing palm trees causing more lightning deaths in Bihar?

Large-scale felling of the tree that yields toddy is being blamed for a jump in the state's lightning toll, with over 2,000 lives lost since prohibition was imposed in 2016

Photo: Pramod Sharma

Palm trees form the backdrop of a site in Nalanda district, where a temple was destroyed by lightning

ning strikes claimed 122 lives in 2015 and 114 in 2016 (although the tally compiled by central govt is higher). However, after rampant felling of palm trees began following the liquor ban, the death toll began to mount.

"We can't ignore the rampant chopping of palm trees as normal," says S K Singh, an agriculture scientist at the Dr Rajendra Prasad Central Agriculture University, Samastipur. "This was always going to prove disastrous, as we are seeing now. The trunk and roots of palm trees naturally contain moisture, allowing them to conduct electricity to the ground without obstruction. This makes it an effective natural lightning conductor." Singh feels the need of the hour is large-scale palm plantation. Only then, he says, can the lightning deaths — which have assumed alarming proportions — be arrested.

The Annual Lightning Report, 2024-25, states that lightning strikes have claimed as many as 2,697 lives in Bihar between 2014 and 2024.

More Lightning Deaths

According to the Bihar Economic Survey and Disaster Management Department, lightning strikes have

Aurangabad, Patna, Nalanda, Kaimur, Rohtas, Bhojpur and Buxar the worst affected.

The report mentions that most lightning deaths took place between 12.30pm and 4pm, when most rural folk remain out of their homes for agriculture-related work or to tend cattle. July has claimed the highest toll with more men, expectedly, falling prey to lightning strikes.

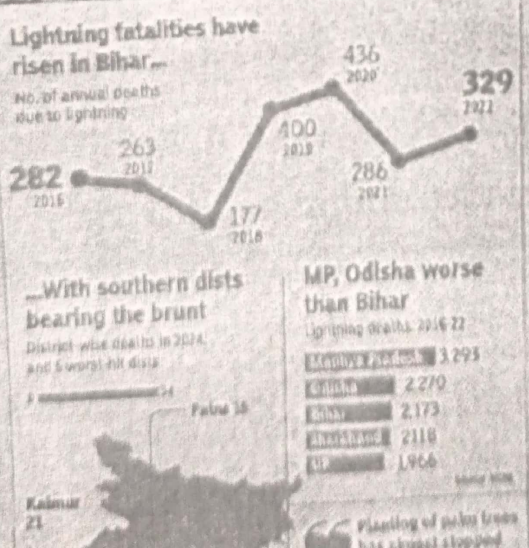
Plant More Palms

Bihar State Disaster Management Authority (BSDMA) vice-chairman Uday Kant Mishra said they were encouraging farmers to plant more palm trees and raising awareness about their unique ability to protect against lightning strikes.

"It's well known that if there is a tall tree, lightning will strike it first," Mishra explains. Another official said "lakhs of palm trees" had been felled in the aftermath of total prohibition since they have lost their "usefulness".

Ranjit Kumar Verma, former vice-chancellor of Munger University, links the rise in lightning-related deaths to environmental degradation. "The cutting down of trees and the reduction in the number of tree clusters are continuously contributing to the rise in lightning strikes," Verma told TOI, recommending development of dense tree clusters, especially of species such as palm and mango, to help dissipate electrical discharge in clouds and reduce the likelihood of lightning strikes.

Verma said planners should work out strategies to grow groves of cyclone-resistant trees. Vide continuous dissipation and stabilise distribution of the electrostatic charges that build up in the sky, accumulating to thousands and even millions of volts. High trees such as the tale



"Planting of palm trees has almost stopped

WHY VILLAGES ARE MORE VULNERABLE

A lightning bolt carries a massive electrical charge. Even though it dissipates when it hits the ground, people in a given radius of the strike can still get electrocuted, a senior national disaster management expert told TOI.

While there is no specific geography where thunder showers or lightning intensity is more pronounced, location does have a role in determining how tragedy strikes. High buildings and lightning rods in urban environs ensure that lightning strikes are safely conveyed to the ground.

Low-lying structures in villages means that lightning directly hits the ground, putting in danger people within a susceptible range. The disaster management expert said that panchayats should take the initiative to put up lightning rods in the highest structure in their

Palm shoots in Patna

"We can't ignore the rampant chopping of palm trees as normal"
— S K Singh, agriculture scientist

traditionally involved in toddy-tapping, has found that the area covered by palm tree plantations in Bihar has gone down by 40% in the past nine years.

"Planting of palm trees has almost stopped after the liquor ban, since the farmers or toddy tappers have lost interest in them. In fact, palm trees are also being cut, since they have become almost useless in the new arrangement," says Sujeet Kumar Chaudhary, national president, Rashtriya Fasl Sena.

Many toddy tappers use the wood for fuel. Further palm tree wood is widely used for building houses due to its availability, versatility and sustainable properties.

lightning, it is recommended that people avoid sheltering in the fields when thunderclouds build up. Standing in submerged paddy fields, farmers are especially vulnerable to a lightning strike, the expert said.

But do trees help?

US weather agency National Oceanic and Atmospheric Administration (NOAA) says, "Tall objects such as trees and skyscrapers are more likely to be struck by lightning... However, this does not always mean tall objects will be struck. Lightning can strike the ground in an open field even if the tree line is close by."

Authorities in Bihar's hill places, though, are betting on trees to mitigate tragedies caused by thunder. A top Bihar disaster official said farmers were being encouraged to plant more trees. "The leaves of the palm tree spread out like an umbrella, providing a large area for lightning to strike," he explained, while the national expert said that studies are needed on the possible advantage palm trees may provide against lighting accidents. Odisha govt is reportedly planting 10 lakh palm trees and restricting their cutting to protect against threats.

palm sap) with the target to tap 2 lakh palm trees and generate 3.9 crore litres during toddy season. Approximately 20,000 toddy tappers will be engaged for this. The scheme will be managed by the Bihar State Beverage Corporation Ltd (BSBCL).

Bihari Prasad, national general secretary of Akhil Bharatiya Pasi Samaj, said 90% of the Pasi community were landless and depended on the toddy business for survival, but the toddy ban had pushed them to the brink of starvation. The idea could again attract this community to their traditional occupation. Bihar Caste Survey puts the number of Pasis in the state to be nearly 13 lakh — which is about 1% of the state's population.

Back in his village in Nawada, Avinash says any change of tack to encourage palm tree cultivation by govt isn't of any

OA-112/2025/EZ

Scanned with OKEN Scanner