

## Researchers warn about perils of mass drives to plant trees

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Researchers at Ashoka Trust for Research in Ecology and the Environment (ATREE) have cautioned on the perils of tree planting drives undertaken annually during World Environment Day on June 5. While state governments, NGOs and CSR professionals go on a tree-planting spree to address climate change, researchers have found that in many of these initiatives, the approach towards tree planting as a natural climate solution is flawed and objectifies trees as a carbon capture solution to the climate crisis.

One of the myths around planting trees – that it helps to improve local biodiversity in all types of ecosystems – has been countered by the researchers. "Planting trees does attract some species of birds and insects, but if the wrong species are planted in the wrong places, it has the potential to disrupt locally adapted species. This is especially true for open natural ecosystems such as savannas and deserts. For example, species such as the great Indian bustard, lesser florican, and many others tend to be negatively impacted by the loss of grassland habitats," one of the findings of the study read.

Speaking to <u>The Indian Express</u>, Anuja Malhotra, policy analyst at the Centre for Policy Design at ATREE, explained, "Afforestation is considered a silver bullet solution with the potential to address climate change and ecological degradation. However, if afforestation is carried out without considering the local socio-ecological context, it can do more harm than good," she said.

"For instance, studies have shown that if tree-planting initiatives are not scientifically sound, the interventions can lead to a reduction in local water tables. This is in stark contrast to the popular belief that afforestation will improve the water table of the region. In fact, the Karnataka High Court asked the forest department to consider banning eucalyptus plantations across the state because the plantations have led to groundwater depletion," she pointed out.

Elaborating further Malhotra said, "Similarly, simply planting saplings is not sufficient; it is important to distinguish between the process of tree planting and tree growth. Lack of monitoring and indiscriminate planting of saplings leads to wasted expenditure. Finally, in India, there are over 80 million agro-pastoralist communities that depend on tree-less ecosystems. The nuanced understanding of communities' dependence and interconnectedness with tree-less ecosystems, such as grasslands, is often missing from afforestation programmes, and so, these programmes end up marginalising communities."

Sharing his insights, Dr Abi Vanak, a senior fellow at the Centre for Biodiversity and Conservation at ATREE and honorary professor at the University of KwaZulu-Natal in South Africa's Durban, stated, "The idea of afforestation needs to be replaced with ecosystem restoration. This then requires a more thorough analysis of what the landscape looked like before it was degraded, and what vegetation it can sustainably support with restoration. Depending on the biogeographic and ecoclimatic zone, this might change from location to location."

"For instance, a grassland should not be converted to a thick forestry plantation. Similarly, muddy or sandy shores of lakes should not be concretised, because this damages the shoreline habitat on which lots of organisms depend. Ultimately, it comes down to understanding what the land has to say, not to impose your own will on what it should be," Dr Vanak added.

In Karnataka, every year government departments and NGOs take up mass-scale tree planting initiatives which Vanak said was "well-meaning but misled".

"Especially the craze for Miyawaki-style hyper-dense plantations that require immense amounts of water. Most areas of Karnataka have a severe problem of groundwater depletion. By planting trees at such hyper densities, and using borewells to irrigate, we are only making the problem worse.

Furthermore, a Miyawaki plantation does not mimic any natural ecosystem in India. These are just as

artificial as manicured lawns. Therefore, an ecosystem restoration-based approach rather than a blanket tree-planting program needs to be adopted for better restoration outcomes," he said.
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