SCAN TO READ THIS ARTICLE IN ENGLISH

URBAN OXYGEN POCKETS

HOW MIYAWAKI FORESTS CAN TRANSFORM INDIA'S CITIES

BY MS. MINAL SRINIVASAN, MANAGING DIRECTOR
KESARI INFRABUILD PVT. LTD.

India's cities are suffocating, quite literally. With AQI levels routinely touching the "severe" zone across major metros and smog-laden skylines becoming an annual reality, urban life is now defined by toxic air, rising heat, and shrinking green cover. As concrete spreads and glass towers multiply, the air grows heavier, the heat more intense, and greenery more elusive. Residents are learning to live without shade, birdsong, or even the simple comfort of breathing clean air. Amid this escalating crisis, a small but powerful idea has begun to take root across India's urban landscape: the Miyawaki forest.

Named after Japanese botanist Akira Miyawaki, this method of creating dense, fast-growing mini-forests in compact spaces offers a rare chance to reclaim nature at the heart of our cities. Beyond beautification, these micro-ecosystems are emerging as vital "oxygen pockets," reshaping how we think about sustainability, climate resilience, and community well-being.

The genius of the Miyawaki method lies in its simplicity. By planting a diverse mix of native species close together, it recreates the natural layering of a forest, compressing what might otherwise take a century into a single decade. Within two to three years, these mini-forests become self-sustaining, requiring little to no human intervention.

For cities grappling with severe air pollution and extreme heat, this rapid regeneration is revolutionary. A Miyawaki forest grows up to ten times faster, becomes far denser, and absorbs far more carbon dioxide than a typical plantation. And because the species are indigenous, they revive local biodiversity, bringing back birds, butterflies, and insects that had long vanished from the urban soundscape.

The compactness of Miyawaki forests makes them especially valuable in India, where urban land is scarce. Even a 100-square-metre plot can host hundreds of trees, each contributing to air purification, noise reduction, and groundwater recharge. In flood-prone metros like Chennai and Mumbai, the deep root systems help absorb excess rainwater, reducing runoff and mitigating the risk of flooding.

Across India, the results are already visible. Once-barren patches behind metro lines, schoolyards, and office complexes have transformed into thriving green pockets of neem, jamun, peepal, and amla. Office workers now take evening walks through shaded pathways; schoolchildren plant saplings and learn about ecosystems; and neighbourhood residents gather to nurture the forests that breathe life back into their surroundings. In overcrowded Indian cities where parks are scarce or poorly maintained, Miyawaki forests offer accessible sanctuaries, places where people can reconnect with nature without leaving their neighbourhood.

Yet scaling this movement comes with challenges. Species selection must be hyper-local, and factors like soil quality, rainfall, and native biodiversity must align for a forest to thrive. Poorly designed plantations risk becoming monocultures or collapsing after the initial growth surge. Early maintenance is critical, and local authorities often underestimate the effort and cost involved. To succeed, these initiatives must be integrated into broader urban planning frameworks instead of being treated as CSR projects. Cities should proactively identify idle spaces, along drains, under flyovers, around public institutions and designate them as potential urban forest zones.

The promise of Miyawaki forests lies in their ability to redefine "green infrastructure" in India. Scaled across thousands of sites, these micro-forests can create a green web that reconnects fragmented urban ecologies, making cities more breathable, liveable, and resilient to climate shocks.