

# POINT BLANK



## Depleting green cover, a grey area of concern

Indiscriminate tree-felling has pushed city's fragile green cover to a point of no return. Yet, this alarming trend has not forced a rethink on projects

Trapped in a vicious green-grey debate, can Bengaluru afford to surrender the last vestiges of its once green heritage? As the development brigade marches on with its concrete monster projects of dubious utility, here comes an alarming piece of statistics: By 2025, grey will dominate 98.5% of the city's landscape.

Tracking the city's dangerous descent into climatic chaos for decades, the Indian Institute of Science (IISc) should know what it is in store. Years ago, its arresting imagery of eight Bengaluru maps from 1973 to 2020 had shocked eve-

ryone. The 1973 map, with its 68.2% green expanse had morphed into a 'built-up' mosaic of 78.7% red by 2017.

But this will not prick the conscience of the bull-dozer, ready to chop down over 3,500 trees for an elevated corridor project that aids none but the car-owners. On the chopping line are 120 Cubbon Park trees, even if the corridor beku brigade contends that the Queen's Road median is outside the park boundary.

A 1998 government notification had clearly defined the Park's boundary as up to and along the Queen's Road and Kasturba Road. The stress on

'along' meant the medians were part of the park, and nobody had the right to construct anything there without the Karnataka High Court's consent. A 2001 court ruling had ratified the boundary notification, clearing all doubts.

The potent threat to Cubbon Park is an arresting symbol of a deeper, far bigger malaise: An ostrich-like disregard to the wanton destruction of Bengaluru's green heritage. The demolition continues when citizen activists, environmentalists and institutions, the IISc in particular, have left the warning bells continuously ringing.

### Critical green roles

Landscapes with tree cover, reminds Dr T V Ramachandra from IISc's Centre for Ecological Sciences, recharges the groundwater, moderates the micro climate, sequesters the carbon emitted in urban environment, maintaining the natural balance.

In 2016, a study led by Dr Ramachandra had conclusively established this: Bengaluru witnessed an astounding 100.5% increase in paved surfaces. This coincided with a deeply troubling 88% decline in green spaces and 79% drop in water spread regions.

Overlaying the administra-

tive boundaries of 198 BBMP wards on the vegetation distribution maps from 1973 to 2012 revealed an interesting trend: The least vegetation cover (less than 1 hectare) was found in Chickpete, Shivajinagara, Kempapura agrahara, Padarayanapura and surrounding areas.

### Highest vegetation

Varthur, Bellandur and Agaram wards had the highest vegetation cover (of over 300 ha). In quantitative terms, wards such as Varthuru, Bellanduru, Agaram, Aramane Nagara had over 40,000 trees. Chickpete, Padarayanapura, Shivajinagara, Kempapura Agrahara, and Kushalnagara wards had less than 100 trees.

But is this slide irreversible? Hardly so, say IISc scientists. They have proof right inside their campus: A mini forest raised from 500 saplings of 49 native species, planted in the 1990s. "The groundwater table that was as deep as 150ft now stands at 10-15ft. The temperature inside the miniforest is at least two degrees lower than the surrounding area," informs Dr Ramachandra.

### Scaling up

Can this be replicated and scaled up for the rest of the city? Yes, if one to two hectares of land is set aside for such miniforests in every ward. "When the government can acquire land for elevated corridor and similar projects, they should find land for this as well."

For the Bruhat Bengaluru Mahanagara Palike (BBMP), afforestation is all about planting saplings. Earlier this month, the Palike unveiled one such plan to plant one lakh saplings across its eight zones with support from various Non Governmental Organisations.

### Sapling response

The Palike's Deputy Conservator of Forests, M K Cholarajappa informs that the saplings are ready at BBMP's four nurseries. Tenders have been finalised for 75,000 saplings. A sum of Rs 5 crore was earmarked in the recent budget

for the project.

Native species are often preferred for the saplings, those valued for timber, honge and mahogany. The Palike, he says, will also make available hole dasavala, huvarasi, sampige, basavana pada, tabebuia, jacaranda and tabebuia guayacan. Also figuring in the list are fruit-bearing trees kadu badami, jamun, gooseberry, cherry and medicinal trees such as neem, simarouba and tapasi.

The saplings could take years or even decades to offer a canopy anywhere near the fully grown trees being felled for multiple projects. But what about the green behemoths that disappear without a trace from official records?

### Tree tracking

To digitally track the city's tree cover and keep a tab on every tree, Bengaluru's tree doctor Vijay Nishant has recently launched a tree census in Jayanagar. The objective is simple: To develop a verifiable database of trees, freely accessible in the public domain. As Nishant notes, this will help citizens and all stakeholders keep a strong vigil on indiscriminate tree-felling.

The tree census might help call the bluff on planting claims. But, as Harini Nagendra, professor of Sustainability, Azim Premji University, points out, a qualitative analysis of the trees being planted is critical in the long-term.

### Species matter

Trees are planted for shade, promotion of bio-diversity and reduction in air pollution. The choice of plants should reflect these objectives. "The old trees, tamarind, mango, banyan and the raintrees, had a lot of canopy. Our studies in recent years show a lot of honge and neem trees are preferred now while the old species are abandoned," notes Harini.

She cautions that this fixation with only a few species could lead to mono-culture. "In case of any pest attack, for instance, the entire lot can get wiped out. The need of the hour: A judicious mix." **Rasheed Kappan**

### Tree Census 2013

Greater Bangalore area:	714 sq.km
Area under vegetation:	100.20 sq.km
Vegetation Density:	0.14
Number of trees:	14,78,412
Population:	89,07,175
Tree per person:	0.166



**APOORVA KUNDER**  
Resident,  
Rajarajeshwari Nagar

In 2006, Rajarajeshwari Nagar was lush green. But now, the entire stretch from RR temple to BEML is lined with massive buildings.



**GANDHI**  
Resident, Koramangala

This entire stretch, from 1st block to the Shiva theatre (in 7th block) used to be filled with trees.. Ejjipura was full of coconut trees... there were no houses at all.



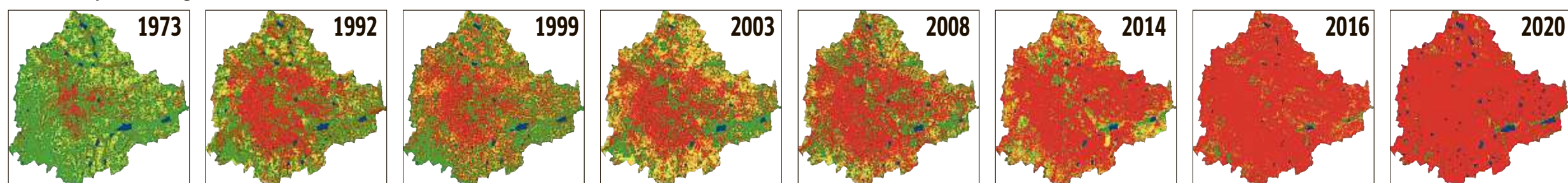
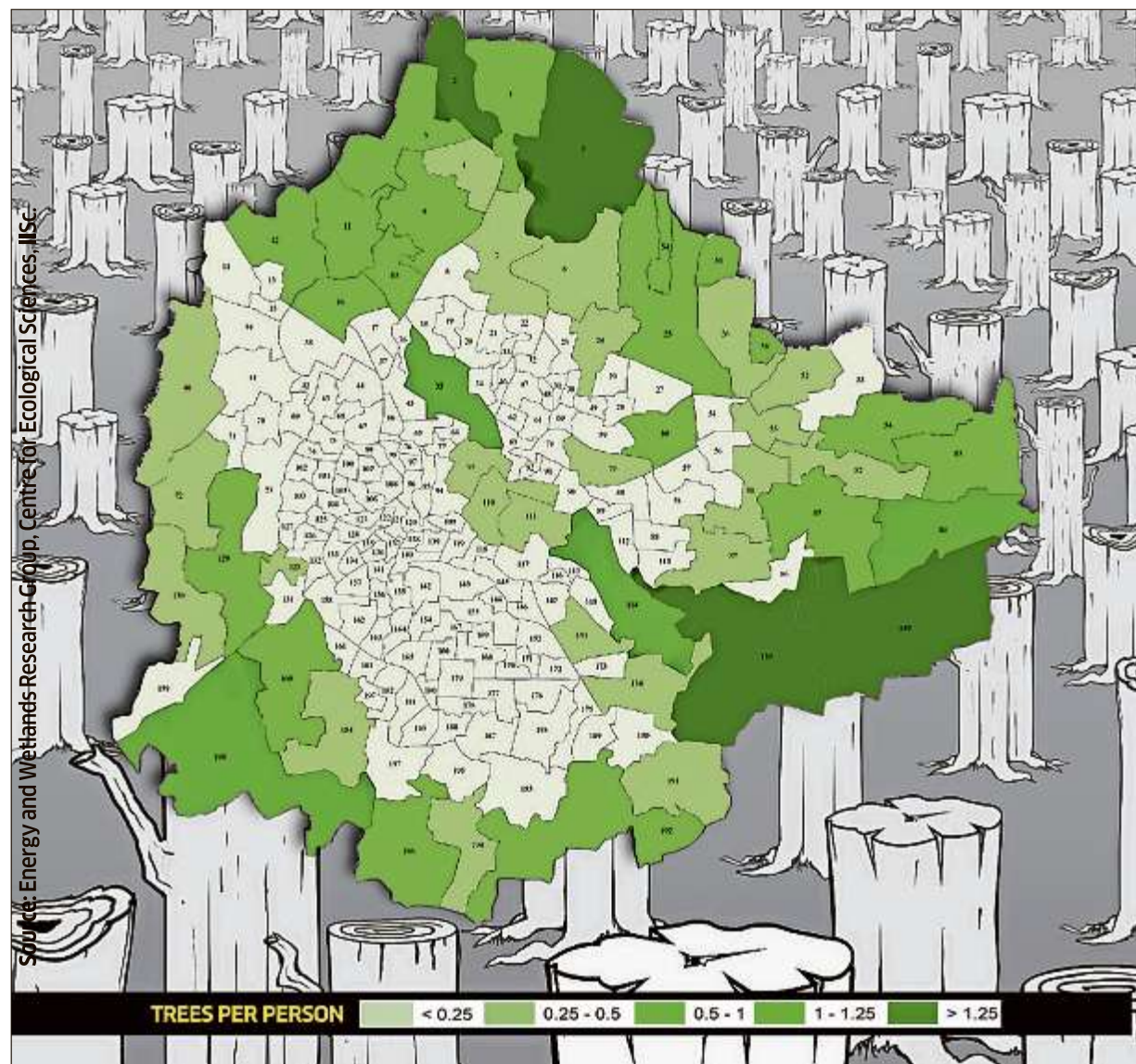
**SUDHAKAR S**  
Bakery owner

I have seen trees disappear here. I saw the trees cut down near St. Johns and other areas in Koramangala, when they were building the flyover.



**LYDIA THOMAS**  
Resident, Hebbagodi

Where I stay now, the residents have made efforts to plant trees. It is a lot greener, a lot quieter. There is a lot more shade around the house now than when I first moved here.



## Fond memories from the city's forgotten green past

The story of cities in India is one of relentless growth and change but in Bengaluru, it is increasingly hard to talk about the city's past except in terms of loss: the absence of the famed, moderate weather, erasing of iconic landmarks, the disappearing act of trees along once verdant roads and neighbourhoods.

The revival of the elevated corridor project has brought the question of embattled trees in the city to the fore again. Today, most people only have memories of the once abundant green cover.

When Apoorva Kunder (24), first moved to Rajarajeshwari Nagar in 2006, the place barely had any commercial establishments. "It was lush green. But now, the entire stretch from RR temple to BEML is lined with massive buildings," she says. She feels like RR Nagar has not faced the full brunt of development, unlike the rest of Bengaluru.

A 59-year old resident in Koramangala, who only identified himself as Gandhi, remembers a time when trees were present throughout the area. "This entire stretch, from 1st block to the Shiva theatre (in 7th block) used to be filled with trees.. Ejjipura was full of coconut trees... there were no houses at all"

Sakkubai, a resident of Malleswaram, has seen the city denuded of trees firsthand. Her work as a health assistant took her to PHCs all around the city. After she retired, Sakkubai is just glad she settled down in Malleswaram. "I think it is better than the rest of Bangalore. Things are still peaceful around here," she says.

Sudhakar S, who currently runs a bakery in Koramangala and has called the city home for the past 20 years, has seen the trees disappearing as well. "I saw the trees cut down near St. Johns and other areas in Koramangala, when they were building the flyover," he says.

For Imran, a native of Bengaluru who grew up near K R

Puram, the loss has been more personal. "From tin-factory onwards, towards ITI Gate, there were so many trees. All of them have been cut down," he says.

Imran particularly rues the loss of public spaces and gardens, where families could relax in the evenings. "I remember, in Hoskote, there was a park right near the stadium. They razed all the trees there

to the ground." Not everything is bleak. Lydia Thomas has been living in the city for the past 13 years. She stayed in Bellandur before moving to a gated community in Hebbagodi near Electronic city, some ten years ago.

"Where I stay now, the residents have made efforts to plant trees. It is a lot greener, a lot quieter. There is a lot more shade around the house now

than when I first moved here," she says.

Even with small signs of hope, it feels like the loss of the city's green past is irrevocable.

One telling example: the Netflix indie comedy Brahman Naman, a movie set in 1980s Bengaluru, was entirely shot in Mysuru because the quaint, leafy neighbourhoods required for certain scenes simply didn't exist in the city

anymore. "You know, we used to go walking on Jayamahal road. There was a particular flowering tree on that stretch that just made your heart glad to look at it. On Brigade road, I remember there was a green canopy; a lot of Anglo-Indians ... with big bungalows. All of them have vanished. The trees and the bungalows. They sold everything," Gandhi says, of

the Bengaluru he remembers. With each passing year, when people speak of a canopy of trees and the dappled shade in their neighbourhoods, it feels like they are evoking a near-mythical past. It would be unfortunate if the very real, once-green past of Bengaluru is relegated to the realm of fantasy.

**Prajwal Suvarna**



IISc Mini Forest. DH PHOTO / SHIVAKUMAR BH

