

POINT BLANK

Flattening the Greens

The city's fast-depleting green cover has been a topic of intense discussion for decades. But this concern, articulated by citizens' groups, has failed to influence decision-making on big projects.

Guest Column

Unplanned urbanisation, senseless infra projects

A peep into the urban dynamics of Bengaluru reveals a very disturbing trend: A 1005% increase in concretisation, loss of tree cover and drastic decline in water bodies.

This is unacceptable as this growth will deprive our children their right to live with clean air, water and environment. The landscape should have at least 33% green cover to maintain clean air, water, etc.

Bengaluru was once known for its salubrious climate and moderate temperature of 14-16 degree Celsius (in 1800). It has now turned into a heat island with raging temperatures of 38-40 degrees Celsius. Apples were once grown in Palace Orchards for a few days in December, benefiting from temperature of zero degrees.

Today, the city is littered with solid wastes and lakes are fed continuously with untreated domestic sewage and industrial effluents. Trees and lakes aid in moderating the micro climate. This is evident in the 2-3 degrees Celsius recorded in locations with good tree cover (Lalbagh, Cubbon Park, IISc campus, etc).



Dr T V RAMACHANDRA
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There is an urgent need to stall this unplanned unrealistic urbanisation. Now is the time to have planned interventions to decongest Bengaluru on priority and get back the lost glory from the clutches of the mafias - land, water and waste.

The solution is to decongest Bengaluru by improving infrastructure in other districts so that a few installations are shifted to those locations. There is no point in having concentrated growth path,

which will make the region unliveable.

Trees aid in sequestering emitted carbons from vehicles and other sources, infiltration of rainwater, allowing groundwater recharge, besides maintaining the ambient temperature.

The government should consider replicating the mini forest model of IISc, which lowered temperature by two degrees and raised groundwater levels.

On the proposed steel flyover project, how can the government claim that IISc has cleared the project without even consulting any IIScian or approaching the Institute. No sensible citizen of Bengaluru will allow such an irrational proposal to siphon off resources. It is time the bureaucrats shun their autocratic, colonial style of misgovernance and stop wasting public money.

Bengaluru's dramatic fall from a once-cherished garden city to a graying, polluted, concrete cluster has been relentless. Scientists have repeatedly warned that this unchecked trend of felling trees for poorly planned development projects will eventually kill the city. Yet, the rot continues.

An Indian Institute of Science study has clearly established the dramatic decline in green spaces. Between 1973 and 2016, vegetation in the city dropped by a whopping 88% and wetlands declined by 79%, notes the study "Bengaluru's reality: towards unlivable status with unplanned urban trajectory."

In this context, the proposed axing of 812 fully grown, century-old trees for the contro-

versial steel flyover project appears patently outrageous, note environmentalists.

Here's some more disturbing data, articulated by scientists with research-rich experience about Bengaluru and its skewed development pattern: A field census aided by remote sensing data has shown a highly skewed people to tree ratio.

Only 1.5 million trees

There are only 1.5 million trees to support Bengaluru's estimated population of 1.1 crore. Scientists have calculated that this is clearly inadequate to meet the respiratory carbon requirement (the range is from 540 to 900g per person per day).

Road infrastructure projects, many of which are poorly planned and designed, have already divested the city of its



critical lung spaces. Campaigners for sustainable transport have been contending that monster projects will only push more private vehicles on to the roads.

The explosive vehicular population growth has gone well past 53 lakh. Vehicular emissions, combined with disappearing tree cover and water bodies, say scientists, creates heat islands. This trend will intensify with projects such as the

steel flyover.

Simply put, a heat island has a high concentration of artificial materials with high heat conductivities. Surface and atmospheric temperatures rise dramatically within these islands. For proof, check this: In the past three decades, the city's temperature has risen by about 2.5 degrees Celsius.

Interventions by the National Green Tribunal (NGT) and the Karnataka High Court

might have put the steel flyover project on hold for now. But the project is definitely on the government's agenda.

Future shock

If it goes ahead, warn both green activists and scientists, the state would be contributing immensely to this alarming picture of the city, four years from now: By 2020, 93% of Bengaluru's landscape will be filled with paved surfaces, making the region water-scarce, non-resilient and unlivable.

Summer months are getting hotter. Winter is getting shorter as the temperatures in October and this month clearly indicate. India Meteorological Department (IMD) has ruled that October was unusually sultry with only two rainy days for a cumulative figure of 11.5 mm.

This is the second lowest rainfall figure for the month in the last 50 years. The last time Bengaluru turned so dry was in October 1965, when it rained only 3.2 mm the entire month.

But there is a way out, as the mini forest experiment conducted by two IISc scientists proves. A mini forest was developed in 1985 on two acres of land adjoining the Centre for Ecological Sciences (CES) inside the IISc campus. Tests proved that the water table had risen to 3 to 3.5 metre below ground, a substantial jump from 60-70 metre, the pre-forest level.

Heat islands

The micro climate also changed. Analysis of thermal

data from satellites showed that the temperature inside the mini forest was at least two degrees lower than the surrounding regions. The evidence was clinching. The correlation between tree cover and temperature was firmly established.

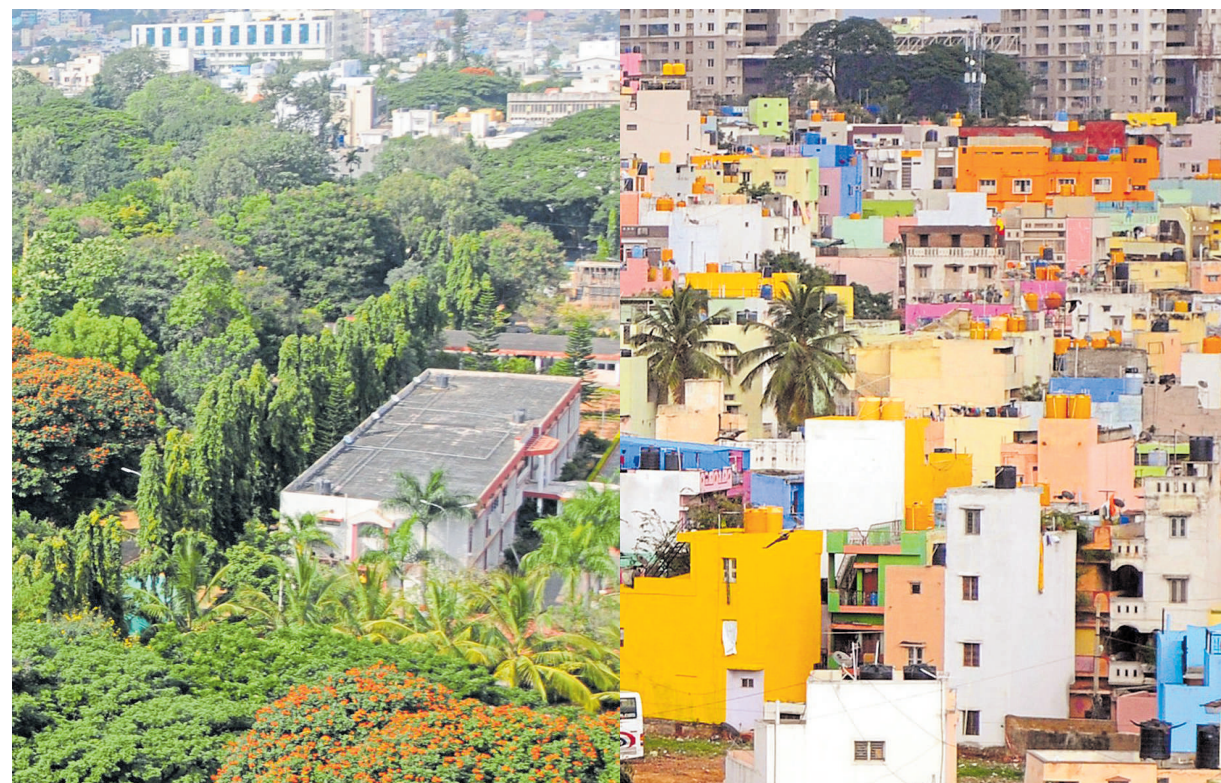
As if to pay lip service to the city's green image, the steel flyover project planners had announced that 60,000 trees/saplings would be planted elsewhere to compensate for the loss of 812 trees. But citizens and environmentalists campaigning against the project wonder how this will help the local ecology. How will this reduce the temperature in heat islands near residential areas abutting the flyover path?

Much of the city's existing green cover outside the parks is made up of roadside trees. But the choice of these trees has been the subject of much debate.

Many question the planting of Gulmohar trees with deep roots that damage underground sewage lines and make road surfaces uneven. Researchers say local species were deliberately ignored in favour of trees that are more suited for Western cities.

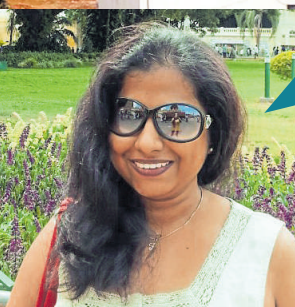
The alternative cannot be ornamental trees with shallow roots. In one instance, heavy storm accompanied by thundershowers had levelled hundreds of trees on Ballari Road a few years ago. It keeps repeating every year, although on a much lower scale.

Rasheed Kappan



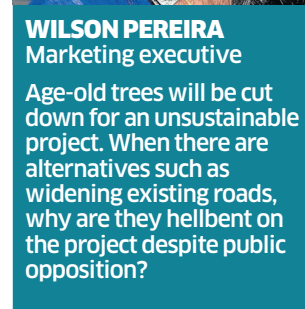
SURAJ KUWAR
Student, Bishop Cotton Women's College

The city has seen deficient rain in the last two years and losing more green cover is simply unacceptable. The flyover will bring in more vehicles and increase pollution.



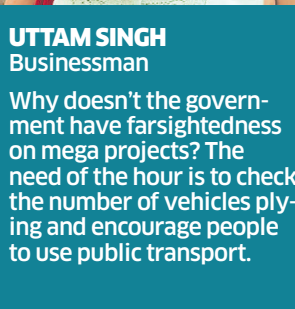
JYOTI SEQUEIRA
Data centre administrator

The proposed 'steal' bridge is a planned disaster by the government. The idea of trading over 800 trees for merely saving 7 to 10 minutes of travelling time is beyond me.



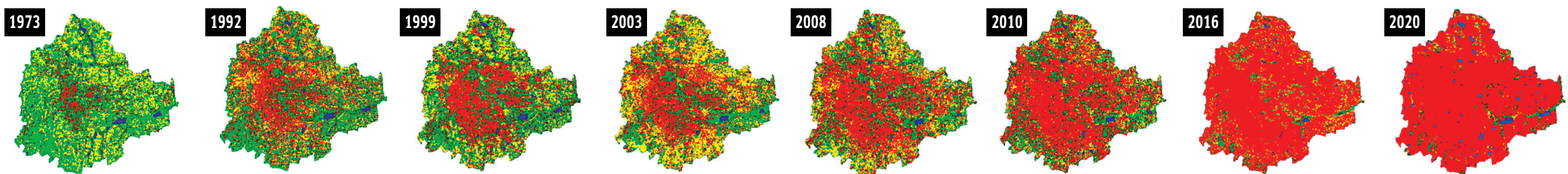
WILSON PEREIRA
Marketing executive

Age-old trees will be cut down for an unsustainable project. When there are alternatives such as widening existing roads, why are they hellbent on the project despite public opposition?



UTTAM SINGH
Businessman

Why doesn't the government have farsightedness on mega projects? The need of the hour is to check the number of vehicles plying and encourage people to use public transport.



BENGALURU'S DEPLETING GREEN COVER: 1973 - 2020

LEGEND: ● BUILT-UP ● VEGETATION ● WATER SOURCE: CURRENT SCIENCE

Citizens' narrative built around saving trees

The steel flyover project may have been put on hold for the time being. But the citizens are still left wondering how an expensive project could be imposed on them by felling hundreds of trees and without an environmental assessment.

Suraj Kuwar, a II BA student at Bishop Cotton Women's Christian College, says: "The proposed project aims at solving the notorious traffic problem, which needs 812 trees to be felled. I don't think this piece of metal is worth so many trees, and that too just to save travel time to the airport."

The city, Kuwar reminds, has seen deficient rain in the last two years and losing

more green cover is simply unacceptable. "The flyover will bring in more vehicles on that stretch and hence increase pollution. Is this the solution we are looking at?"

The Bangalore Development Authority (BDA) talks about planting 60,000 saplings. "Of course they will go ahead and plant them, but how many saplings have survived in the past... has BDA got any record?" she asks. "This promise too will fall flat as the authorities have failed to monitor or water the saplings in the past. If the government seriously wants to solve the traffic issues,

then it will have to look at long-term solutions, without compromising on the city's environment."

Uttam Singh, a businessman who is a regular commuter on the stretch, says: "Another flyover, this time with a fancy 'steel' prefix. Bengaluru can now simply be called the 'city of flyovers', but none of those structures is serving its purpose. I need to travel through the Hebbal flyover multiple times every day, but the traffic bottlenecks force me to spend hours in jams."

The planned flyover, which will either land before Hebbal flyover or Es-

teem Mall, will bring in more vehicles, adding to the already chaotic situation. "Maybe it will ease the movement from Chalukya Circle, but it will create even bigger traffic bottleneck in Hebbal area as the traffic would converge. Bengaluru may be the only city where even flyovers witness traffic jams," says Singh.

Why waste taxpayers' money when the project is not going to serve its purpose in the future. The BDA will demolish a couple of small flyovers on the stretch to build this steel structure. "Maybe after 10 years, it will propose to demolish the steel flyover too, if it doesn't serve the purpose. What a waste of public wealth. Why

doesn't the government have farsightedness regarding such mega projects. Instead, the need of the hour is to check the number of vehicles plying on the roads and encourage people to use public transport system."

Wilson Pereira, a marketing executive, says: "Most government projects taken up so far have been in controversy for one or the other reason. The steel flyover project adds to this list. Building a flyover, bridge or underpass to decongest the traffic is one of the primary duties of the government departments concerned. But taking up the work without public opinion or

Environmentalists have raised concerns that the steel flyover will increase the temperature by one or two degree Celsius as the material absorbs heat and releases it back into its surroundings

expert advice is unacceptable." Age-old trees will be cut down for an unsustainable project.

"When there are alternatives like widening the existing roads among others, why is the government adamant in going ahead with the project even though the whole community is against it? Why can't the government think out of the box to address the traffic woes?"

Pereira's fervent hope is this: "Experts and the public certainly have various sustainable ideas in this regard, but the government needs to consider and take them forward. I hope the government does not end up felling the trees."

Rise in temperature Environmentalists have already said the steel bridge will increase the temperature by one or two degree Celsius as the material absorbs heat and releases it back into its surroundings. With numerous high-rise buildings in the targeted area and also given that Bengaluru recorded 40 degrees Celsius, its highest in 15 years, in April this year, the flyover is going to be disastrous.

Moreover, the project will also contribute to groundwater depletion. "If not for vested interests, why is it done?" is the question most Bengalureans are asking. Chethan Misquith

