

# Are TenderSURE roads in the Garden City tree-friendly? (/article/are-tendersure-roads-garden-city-tree-friendly-51789)

Fifty more roads will come under TenderSURE.

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The TenderSURE project which is being implemented in three Karnataka cities including Bengaluru have come in for a fresh round of criticism.

Researchers who have studied the roads being constructed under the project in Bengaluru have alleged that the roads have simply not factored in the environment in its design, while claiming that they are model roads.

The designers of the project, Jana Urban Space Foundation (JUSP), describe the project thus – “about addressing the issues that have made Indian roads so notorious for their chaotic traffic , potholes, broken footpaths, overflowing drainage, poorly placed power transformers and their hanging, spaghetti tangle of electrical wiring and telecom fixtures”.

Often, project proponents have said the roads would promote walking as a mode of commute while discouraging motor vehicles.

Currently, 12 roads in Bengaluru and two in the northern twin-cities of Hubballi-Dharwad

(<http://www.thehindu.com/news/national/karnataka/work-on-shirur-park-road-may-be-taken-up-under-tender-sure/article8431326.ece>) are being implemented constructed in accordance with TenderSURE design. The first road to be opened to the public was St. Marks Road.

Amidst heavy public criticism (<http://www.thehindu.com/news/cities/bangalore/citizens-groups-may-take-tender-sure-to-court/article7998231.ece>) earlier this year, BBMP included 50 more roads across the city that will come under the phase-2 of TenderSURE project. By April over 25 of them had been dug.

Municipal corporations in Chennai and Hyderabad have approached their Bengaluru counterparts to study the possibility of implementing

([http://articles.economictimes.indiatimes.com/2015-07-01/news/64004552\\_1\\_greater-hyderabad-municipal-corporation-bengaluru-vittal-mallya-road](http://articles.economictimes.indiatimes.com/2015-07-01/news/64004552_1_greater-hyderabad-municipal-corporation-bengaluru-vittal-mallya-road)) TenderSURE in their cities.

Based on documents obtained through RTI on

TenderSURE project design and other research on environment in an urban setting, independent researchers and activists Jhanavi Pai and R. Sheshadri say that the roads would add to Bengaluru's worsening environment conditions. The project would adversely impact the city's diminishing tree cover which has implications on temperature, noise and air pollution.

JUSP did not respond to emails and messages from The News Minute. Below, is a summary of the researchers' findings. In the light of damage to the city's existing environment, the picture isn't pretty.

### **Tree's falling**

TenderSURE design, was promoted saying that the roads would not have to be dug up once laid, as all utilities have been placed under footpaths. However, the researchers allege that this particular design factor has adversely affected the trees, weakening their roots. Trees have fallen in some places because their roots weakened on account of the footpath design. In other places, activists and city-dwellers have opposed the cutting of trees on roads where the project is being implemented.

“While TenderSURE details every single aspect of project execution, it barely mentions trees...trees are clubbed with ‘street furniture’ like utility boxes, poles, street



lamps and bench etc,” says the report.

Referring to the ‘Landscaping strip’, Jhanavi says, “Without studying the root structure of the trees, the designers have decided on their own that they would leave a width of 0.5 metres and a depth of 0.4-0.8 metres on which the tree will have to grow,” said. The strip has 0.4-metre space width on the footpaths of local roads and 1-metre for higher order roads for trees and other plants.

This design is not conducive to the root systems of the trees. Researchers say that 90-95% of a tree’s root system is in the top three feet of the soil and the structure generally differs from species to species.

with pictures, the researchers show allege that the roots of trees that fall out of the strip would be chopped off.

“According to the investigation, the five trees that fell in Jayanagar fell because of the root system that was weakened because of this,” adds Jhanavi.

“Even the area meant for greenery has been planted with water-intensive plants, in a city that faces a serious water problem, and where ground water levels are alarmingly low. The concretization does not allow for groundwater recharge,” said Sheshadri.

## **Tree canopy**

The utilities under the footpath do not allow for trees to be planted in future as there is no soil for 10 feet under these footpaths.

The pair also said that tree canopies were important to mitigate the heat. Cities are concentrated masses of substances that trap heat.

Quoting the 'Greater Bangalore: Emerging Urban Heat Island' study by IISc Prof. T V Ramachandra, they said that the average temperature in summer in Bengaluru since 1992 has increased by over 7 degrees. Thanks to high concretization and reduce in green cover.

With temperatures hovering around an average 19.03 degree Celsius in 1992, Bengaluru was a naturally air-conditioned city. But today, temperatures are in the mid-30s level, prompting people go buy air-conditioners. The mercury hit the highest ever at 39.2 degree Celsius in this April.

## **Trees and noise**

Tendersure's proponents have always projected the project as tree-friendly, claiming that the footpaths had been deliberately widened to ensure that trees were not chopped off when the carriageway was streamlined. But earlier this month, residents protested the illegal felling of trees on TenderSURE roads, also decrying that 15 trees

had already chopped off for the TenderSURE roads including eight in Jayanagar.

In the past, the then BBMP commissioner M Lakshminarayana had defended the project saying, "World over, there are no trees on footpaths. In Bangalore, there are some trees on footpaths and we are planting saplings but it's not an intensive exercise. Intensive plantation is being taken up in parks and open spaces."

Research however, shows that trees have wide ranging impact on the city, and not just for biodiversity. The study, titled 'Street trees in Bangalore: Density, diversity, composition and distribution', shows that trees along the roads that see a lot of vehicular traffic are important not just for shade.

Trees reduce the intensity of pollutants such as like SO<sub>2</sub> and suspended particulate matter (SPM). Thus, cutting off trees in the city and compensating by planting saplings elsewhere in green spaces, as the BBMP proposes to do, will not help reduce pollution.

Street trees also help reduce noise pollution. For instance, wood has more absorption capacity than concrete. Noise and light tend to bounce back on highly concretised and treeless roads.