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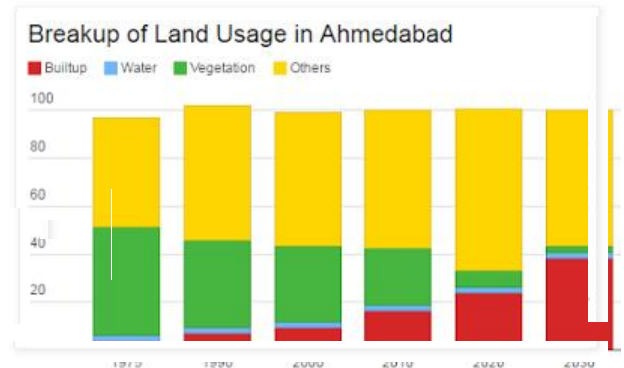
Tuesday, March 29, 2016

## Ahmedabad's tree cover down to 24% from 46% in two decades, likely to bottom 3% by 2030: Study

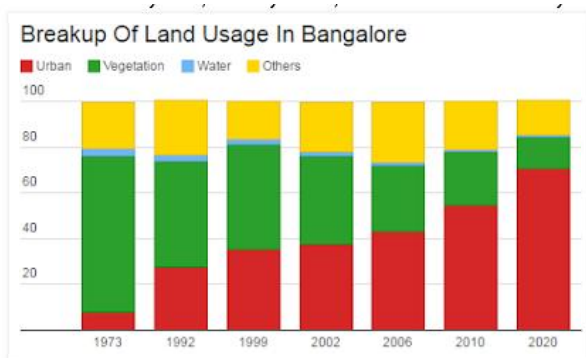
By Our Representative

A recent [study](#), sponsored by the prestigious Indian Institute of Science (IISc), Bangalore, has said that Ahmedabad's tree cover fell from 46% to 24% over the last 20 years, while the city's built-up area up increased by 132%. It predicts, by 2030, the vegetation cover will go down to 3% of Ahmedabad's area.

The study, which covers three other cities, Kolkata, Bhopal and Hyderabad, has used satellite-borne sensors, comparing images over decades and modeled past and future growth to reveal the rate of urbanisation in the four Indian cities.



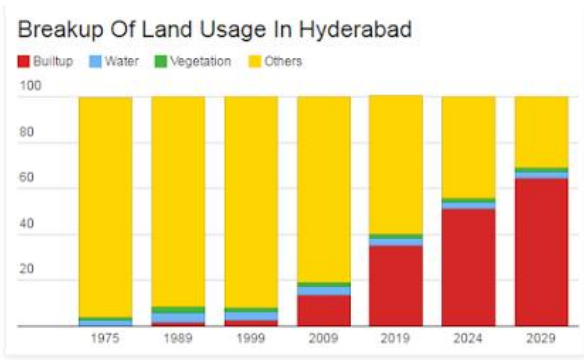
The study says, Kolkata's tree cover fell from 23.4% to 7.3% over 20 years, while its built-up area went up by 190%; by 2030, its vegetation cover will be down to 3.37%. Bhopal's tree cover fell from 66% to 22% over the last 22 years, and by 2018, it will be down to 11% of the city's area. And Hyderabad's tree cover fell from 2.71% to 1.66% over 20 years, and by 2024, it will be 1.84% of city's area.



Revealing contents of the study, Deepa Padmanaban of [indiaspend.com](#) said, "The study has been carried out by Prof T V Ramchandra and his team at the Energy & Wetlands Research Group, Centre for Ecological Sciences, by analysing agents of change and drivers of growth, such as road networks, railway stations, bus stops, educational institutions and industries; defence establishments, protected regions, such as reserve forests, valley zones and parks."

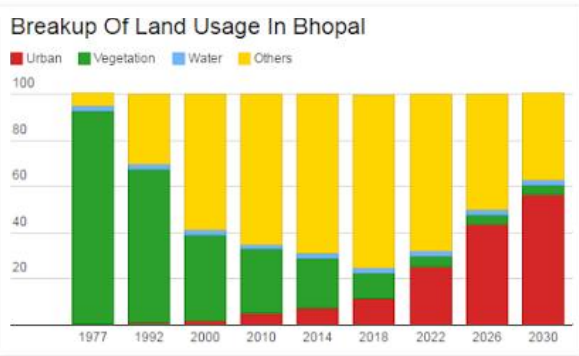
"The researchers classifies land use into four groups: Urban or built-up, which includes residential and industrial areas, paved surfaces and mixed pixels with built-up area, meaning built-up areas which contain areas from any of the other three categories water, which includes tanks, lakes, reservoirs, and drainages; vegetation, which includes forests and plantations; and others, including rocks, quarry pits, open ground at building sites, unpaved roads, cropland, plant nurseries and bare land", she added.

The study says, the population of Kolkata is now 14.1 million, making it India's third-largest city. While its urban built-up area increased 190% between 1990 and 2010, in 1990, just about 2.2% of land was built up; in 2010, 8.6%, which is predicted to rise to 51.27% by 2030.



As for Hyderabad, with a population of 7.74 million in 2011, it is poised to be a mega city with 10 million people in 2014. Its urban built-up area rose 400% between 1999 and 2009. In 1999, 2.55% of land was built up; in 2009, 13.55%, which is predicted to rise to 51.27% by 2030.

Ahmedabad had a population of 5.5 million in 2011. It is the sixth largest city of India. While between 1990 and 2010 its built-up area rose by 132%, in 1990, 7.03% of land was built-up, which in 2010 reached 16.34%, and is predicted to rise to 38.3% in 2024.



Bhopal, which is one of India's greenest cities, with a population of 1.6 million people, is better off than other cities even today, "but the concretising trend is clear", says Padmanaban, adding, "In 1992, 66% of the city was covered with vegetation (in 1977, it was 92%); that is down to 21% and falling."

"India's fastest growing city has traditionally been Bangalore. There are no recent estimates for its concretisation, but in 2012, Ramachandran and his group found a 584% growth in built-up area over the preceding four decades, with vegetation declining 66% and water bodies 74%", Padmanaban says, quoting the study.

"The highest increase in urban built-up area in Bangalore was evident between 1973 and 1992 -- 342.83%. Decadal increases since, between 1992 and 2010, have averaged about 100%: 129.56% from 1992 to 1999; 106.7% from 1999 to 2002; 114.51% from 2002 to 2006; and 126.19% from 2006 to 2010", she said.

"Bangalore's population rose from 6.5 million in 2001 to 9.6 million in 2011, a growth of 46.68% over a decade; population density increased from 10,732 persons per square kilometre in 2001 to 13,392 persons per square kilometre in 2011", she added.