Increasing Green Cover in Cities Can Reduce Premature Deaths, Finds Study

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Planting trees and making urban environments greener can prevent many premature deaths every year, researchers have found.

A study, published in the journal *The Lancet Planetary*, analysed the impact of increasing green spaces on premature mortality in Philadelphia, US, and found that increasing the tree canopy to 30 percent of land area in an entire city could prevent over 400 premature deaths every year, and yield an estimated annual economic benefit of almost four billion dollars.

The research, led by the Barcelona Institute for Global Health (ISGlobal) and the US Forest Service, shows that green spaces in urban settings are associated with benefits for the physical and mental health of the city's residents.

A recent systematic review and meta-analysis, which included nine longitudinal studies involving over eight million people in seven different countries, found a significant association between an increase in green space around homes and a reduction in premature mortality.

"Achieving this goal does not come without challenges. Large tree planting initiatives are faced with many problems, including losses from climate change, tree pests and invasive species, and urban development", explained study first author Michelle Kondo.

In the study, researchers used the dose-response function from the meta-analysis to carry out a health impact assessment and estimate the number of all-cause deaths that could be prevented if green spaces in a whole city were increased.

The team studied three different possible scenarios for the city of Philadelphia for 2025.

The most ambitious was based on the current goal as set by the City Council of an increase in tree coverage to 30 percent of land area in each of the city's neighbourhoods (current coverage is 20 percent for the city as a whole).

The other two scenarios were less ambitious. Data on the existing canopy was obtained from aerial and satellite imagery, which allowed the researchers to measure the tree coverage by viewing the crown, leaves, branches and stems from above.

The results of the analysis showed that if Philadelphia achieves its goal of increasing tree coverage to 30 percent of the city by 2025, about 403 premature adult deaths would be prevented each year, representing three percent of the city's annual mortality.

The two more moderate scenarios were also associated with significant reductions in annual mortality: a 5 percent and 10 percent increase in tree canopy could result in an annual reduction of 271 and 376 deaths, respectively.

The study also showed that neighbourhoods with a low socioeconomic level would benefit most from any increase in green spaces.

"Although every city has its own characteristics, this study provides an example for all the cities in the world: many lives can be saved by increasing trees and greening urban environments, even at modest levels," said study coordinator Mark Nieuwenhuijsen.

Source: https://weather.com/en-IN/india/news/news/2020-05-05-increasing-green-cover-cities-reduce-premature-deaths-study