

## How to fight climate change? Plant a trillion trees

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A recent study has suggested that the process of reforestation around the world would be the most effective method to combat climate change.

Around 0.9 billion hectares of land worldwide would be suitable for reforestation, which could ultimately **capture two-thirds of human-made carbon emissions**.

### About the study

Researchers investigated nature-based solutions to climate change. In the latest study published in the journal 'Science,' researchers for the first time showed where in the world new trees could grow and how much carbon they would store.

"One aspect was of particular importance to us as we did the calculations. We excluded cities or agricultural areas from the total restoration potential as these areas are needed for human life," study lead author Jean-Francois Bastin explained.

### Findings of the study

The researchers calculated that under the current climate conditions, Earth's land could support 4.4 billion hectares of continuous tree cover. That is 1.6 billion more than the currently existing 2.8 billion hectares.

Of these 1.6 billion hectares, 0.9 billion hectares fulfill the criterion of not being used by humans. **This means that there is currently an area of the size of the US available for tree restoration.**

Once mature, these **new forests could store 205 billion tonnes of carbon**, about two-thirds of the 300 billion tonnes of carbon that has been released into the atmosphere as a result of human activity since the Industrial Revolution.

"We all knew that restoring forests could play a part in tackling climate change, but we didn't really know how big the impact would be. Our study shows clearly that forest restoration is the best climate change solution available today," said co-author of the study, Thomas Crowther.

"But we must act quickly, as new forests will take decades to mature and achieve their full potential as a source of natural carbon storage," he added.

### **Areas most suited for forest restoration**

The study also shows which parts of the world are most suited to forest restoration. The greatest potential can be found in **just six countries**:

- Russia (151 million hectares)
- US (103 million hectares)
- Canada (78.4 million hectares)
- Australia (58 million hectares)
- Brazil (49.7 million hectares)
- China (40.2 million hectares)

Many current climate models are wrong in expecting climate change to increase global tree cover, the study warns. It finds that there is likely to be an increase in the area of northern boreal forests in regions such as Siberia, but tree cover there averages only 30 to 40 percent.

These gains would be outweighed by the losses suffered in dense tropical forests, which typically have 90 to 100 percent tree cover.

Source: <https://www.indiatoday.in/education-today/latest-studies/story/climate-change-forest-reforestation-tree-plantation-1563838-2019-07-07>