



Trees in far north provide biggest climate benefit

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CHAMPIONS of carbon offsetting may have been barking up the wrong tree. It is generally assumed that the tropics are the best place to plant forests in order to sequester carbon and cool the planet, but a study of the effects of tree planting is casting doubt on this idea. To maximise climate benefits we should be planting trees at higher latitudes, the study suggests.

Alvaro Montenegro at [St Francis Xavier University](#) in Nova Scotia, Canada, and colleagues used high-resolution satellite data to work out where new forests would bring the biggest benefit. They estimated the net climate impact of planting trees on 5-kilometre-square plots of cropland in locations where forests can be expected to thrive.

Their calculations took into account both the cooling effect of the trees soaking up CO₂ and the heating effect which would result from the trees reflecting less sunlight than the crops they replaced. To their surprise, Montenegro's team found that on balance, planting forests in northern Russia, central Canada and Europe would cool the climate more effectively than planting them in India, Brazil and most of China (*Global and Planetary Change*, [DOI: 10.1016/j.gloplacha.2009.08.005](#)).

Govindasamy Bala at the Indian Institute of Science in Bangalore reckons existing tropical carbon-offsetting schemes may still have the edge, however. Montenegro's study may have overestimated the amount of carbon forests in Siberia and Canada can store, he warns.