

Mapping the 1.6 billion people who live near forests

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This photograph, taken in the Médio Juruá region of Amazonas State, Brazil, shows the houses of forest-proximate people living in sustainable development reserves in Amazonia. Credit: Peter Newton, University of Colorado Boulder

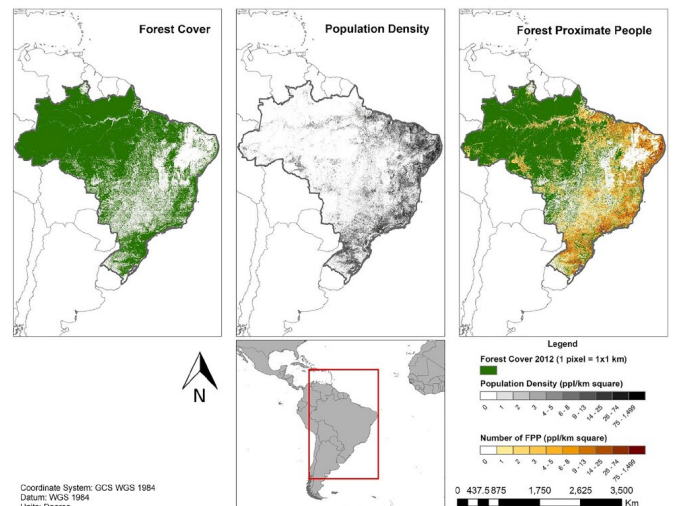
Global maps of places where people and forests coexist show that an estimated 1.6 billion people live within 5 kilometers of a forest. The assessment, based on data from 2000 and 2012 and published September 18 in the journal *One Earth*, showed that of these 1.6 billion "forest-proximate people," 64.5 percent were located in tropical countries, and 71.3 percent lived in countries classified as low or middle income by the World Bank.

"There were no data at all on how many people live in and around forests globally," says first author Peter Newton, an Assistant Professor in Environmental Studies at the University of Colorado Boulder. "The exercise was an initial step of trying to quantify the potential target population for projects that look at people's livelihoods in a forest environment."

People who rely on [forest resources](#) for

subsistence or income are commonly known as forest-dependent people. Although the number of forest-proximate people coincidentally matches the 1.6 billion forest-dependent people from a widely cited estimation from the World Bank, living near the forest doesn't necessarily mean one relies on the forest for livelihood. Newton says that while "forest-dependent people" widely refers to people who derive some benefits from forests, the term "forest-proximate people" merely captures the spatial relationship between people and forests.

"Large numbers of people do live in and around forests, so that makes forests an important habitat and biome for thinking about sustainable development as well as about conservation," says Newton. "The programs, projects, and policies that affect forests also affect large numbers of people."



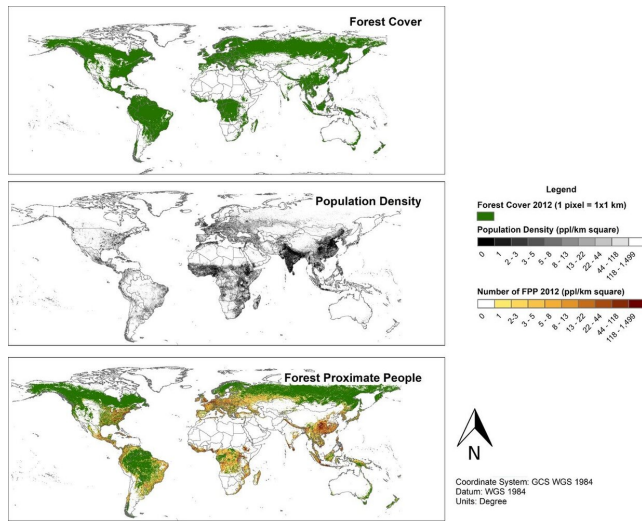
This map shows the distribution of forest-proximate people (rural people living within 5 km of a forest) in Brazil in 2012. Credit: Newton et al./One Earth

To map out the spatial relationship between people and forests globally, Newton and his colleagues

combined forest cover and human population density data for the year 2000 and 2012. They counted the number of people who lived within 5 km (3.1 miles) from the border of forests, which they defined as any area with more than 50 percent tree cover over 2 hectares (5 acres). But they excluded urban areas with a population above 1,500 people per square kilometer (0.4 square miles).

Proximate People Globally" [www.cell.com/one-earth/fulltext ... 2590-3322\(20\)30425-5](http://www.cell.com/one-earth/fulltext...2590-3322(20)30425-5) , DOI: [10.1016/j.oneear.2020.08.016](https://doi.org/10.1016/j.oneear.2020.08.016)

Provided by Cell Press



This map shows the distribution of forest-proximate people (rural people living within 5 km of a forest) globally, in 2012. Credit: Newton et al./One Earth

The work provides a sketch to which other researchers and [decision-makers](#) could add on different layers of data, such as social, economic, or cultural details to paint a more complete picture. However, many of these datasets aren't available at a global level.

"What other researchers or we could do in the future is home in on a particular region where we did have data," says Newton. From local data, scientists could infer how many of those forest-proximate people were also [forest](#) dependent or living in poverty to help decision-makers implement spatial targeting and impact assessment.

More information: *One Earth*, Newton et al.: "The Number and Spatial Distribution of Forest-

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