

Amazon conservation policy working in Brazil (w/Video)

June 16 2009

Contrary to common belief, Brazil's policy of protecting portions of the Amazonian forest from development is capable of buffering the Amazon from climate change, according to a new study led by Michigan State University researchers.

The study, to be published in the *Proceedings of the National Academy of Sciences*, contends state and federal governments in Brazil have created a sustainable core of protected areas within the Amazon. And even if the remaining Brazilian Amazon is deforested, the climate will not significantly change - thereby protecting the Amazon's ecosystems.

"The thought has been that if you deforest up to a certain point in the Amazon, the forest will completely lose the ability to recover its tropical vegetation - that you will basically convert it to a desert, especially in the south and southeastern margins of the basin," said Robert Walker, MSU professor of geography and lead researcher on the project.

"But our research shows that if you protect certain areas of the Amazon, as the Brazilian government is currently doing, the forest will not reach a tipping point, which means we can maintain the climate with levels of deforestation beyond which was originally thought."

Roughly the size of the 48 contiguous states, the Amazon River Basin is home to the world's largest rainforest, most of it in Brazil, and is the largest freshwater source on Earth. The Amazon is made up of a wide variety of exotic plant and animal life, including macaws, jaguars,

anteaters and anacondas.

In Brazil, the government has set aside about 37 percent of the Amazon basin as protected area, Walker said.

Meanwhile, about 17 percent of the Brazilian Amazon has been deforested since the opening of the basin to development in the mid-1960s, he said.

Critics warn the Amazon is close to a tipping point in which the continued stripping of forests will stem rainfall and turn the tropical region into scrubland. Because trees pull moisture from the ground and release it back into the atmosphere, leading to rainfall, cutting them down threatens this "vegetative recycling" process, Walker said.

Walker and fellow researchers from Brazil and the United States conducted three years of atmospheric computer modeling on the region. Their study assumed the worst-case scenario - that all of the Brazilian [Amazon](#) not protected by the government would be deforested.

Even under this scenario, their findings indicate rainfall levels would not decrease to the point of changing the landscape and harming the ecosystems within the protected areas.

"Some people think the tipping point is going to occur at 30 percent to 40 percent deforestation," Walker said. "Our results suggest this is not the case; that you can have quite a bit of deforestation - perhaps up to 60 percent - before you get to the crash point."

The study also assumes the government-protected forests would not be altered beyond their current condition.

Source: Michigan State University ([news](#) : [web](#))

Citation: Amazon conservation policy working in Brazil (w/Video) (2009, June 16) retrieved 26 April 2024 from <https://phys.org/news/2009-06-amazon-policy-brazil-wvideo.html>

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