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Amazon Could Lose More Than Half Its Forest, Group Says

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The impact of climate change and deforestation could wipe out or severely damage more than half of the Amazon forest by 2030—making it impossible to keep global temperatures from reaching catastrophic levels, an environmental group said this week.

Several recent studies have suggested similar findings, but other scientists say the size and complexity of the Amazon leaves many questions about the rain forest's future open to debate. Brazil's Environment Ministry did not respond to a request for comment.

"The importance of the Amazon forest for the globe's climate cannot be underplayed," said Daniel Nepstad, author of a new report by the World Wide Fund (WWF) For Nature released at the United Nations' climate change conference in Bali, Indonesia.

"It's not only essential for cooling the world's temperature, but also such a large source of fresh water that it may be enough to influence some of the great ocean currents, and on top of that, it's a massive store of carbon."

Sprawling over 1.6 million square miles (4 million square kilometers), the Amazon covers nearly 60 percent of Brazil.

Largely unexplored, it contains one-fifth of the world's fresh water and about 30 percent of the world's plant and animal species—many still undiscovered.

Large swaths of forest like the Amazon are also valuable "carbon sinks," or absorbers of carbon dioxide. Deforestation pours carbon dioxide into the atmosphere and at the same time kills off carbon-absorbing vegetation.

Tipping Point

The WWF said logging, livestock expansion, and worsening drought are projected to rise in the coming years and could result in the clearing of 55 percent of the rain forest. If rainfall declines by ten percent in the Amazon, as predicted, an additional four percent could be wiped out.

Scientists say if global temperatures rise more than 3.6 degrees Fahrenheit above preindustrial levels, the risks to the environment and to people will be enormous. It is essentially the "tipping point" for catastrophic floods and droughts, rising sea levels, and heat wave deaths and diseases.

"It will be very difficult to keep the temperatures at 3.6 degrees (Fahrenheit) if we don't conserve the Amazon," said Nepstad, who is also a senior scientist at the Woods Hole Research Center in Massachusetts.

According to the WWF, deforestation in the Amazon could result in 55.5 billion to 96.9 billion tons of carbon dioxide being released into the environment by 2030, an amount roughly equivalent to two years of global carbon emissions, by some estimations.

Earl Saxon, a climate change expert with the World Conservation Union, said the report was consistent with "all the

best science" on the issue and recognizes there are "opportunities the delegation in Bali can take to protect the Amazon basin."

"What Will Happen"

However, Milton Nogueira, a Brazilian government consultant on climate change who is also part of his country's Bali delegation, said such predictions on the Amazon's future should be taken lightly given its "size and complexity."

"It is such a big, complex system that no one can predict what will happen," he said. "It is like you are looking at a blond and blue-eyed boy and saying he will be an Olympic champion."

In its report the WWF said saving the Amazon requires a shift to sustainable logging practices, implementation of land-use polices that are already on the books in the country, and the provision of money to developing countries including Brazil to reduce deforestation.

"We can still stop the destruction of the Amazon, but we need the support of the rich countries," said Karen Suassuna, a climate change analyst with WWF-Brazil. "Our success in protecting the Amazon depends on how fast rich countries reduce their climate-damaging emissions to slow down global warming."