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PORTO VELHO, Brazil - Three years after Brazil was host to the Earth Summit, shepherding ambitious international accords on biodiversity and climate change, burnings in the Amazon region appear to be approaching the worst levels ever, while information on the country's most explosive ecological issue - the extent of forest clearing in the Amazon - has virtually dried up.

The burnings, aggravated by six months of little or no rain in the region, are leaving a thick blanket of gray smoke over forest and savanna. At the height of the burning season recently, the forest was cloaked in shadow, the sun appeared veiled and neither stars nor moon could be seen in the night sky.

The vast fires in the Amazon region are not runaway blazes alone, but an annual ritual from early July to November as ranchers, farmers and developers clear land for cattle grazing, planting or building. Much of the smoke rises from regrown forests in areas that were felled years ago, along with pastures and savannas. But the locations of some fires suggest a large amount of virgin rain forest is being cleared as well.

Airports in much of the Amazon have been closed for at least part of every day because of the thick smoke. Doctors at one hospital in Rondonia said they were seeing many more patients as a result of the burnings this year than last, with many children suffering from respiratory problems.

"According to our statistics, this year is the worst year as far as fires are concerned," Marcio Nogueira Barbosa, director general of the Brazilian government's National Institute for Space Research, said in an interview. "We know that the situation in some parts is very dire."

The increase comes after several years of claims by the Brazilian government that destruction of the Amazon rain forest had slowed thanks to steps it had taken, including the elimination of government subsidies for clearing untouched forest. But environmental experts contend the country's failure to analyze the extent of deforestation since 1991, along with the stepped-up levels of burnings in the Amazon region, raise doubts about those claims.

The fate of the Amazon rain forest has drawn worldwide interest because it is believed to be home to a large share of the world's species. Atmospheric scientists also say that extensive clearing of the rain forest may contribute to the threat of global warming.

Alberto Setzer, who tracks burnings in the Amazon for the National Institute for Space Research, said that in July weather satellites detected 39,900 fires, a nearly fivefold increase over the 8,503 fires in July of 1994. In the first half of August alone his agency's weather satellites showed 72,200 fires. In August 1994, the figure was 61,000 for the entire month.

“In general we notice a very strong increase in fires in the Amazon region, and in regions where we didn't expect to see the fires,” Setzer said. “It means that for sure we'll have a very high figure of new deforestation this year.”

Elaine Prinz, a professor at the University of Wisconsin who has been studying the Amazon region using a geostationary satellite that transmits data every three hours, said the burnings were not limited to Brazil.

“There are millions of square kilometers covered with smoke in the Amazon basin,” she said. “On one day, around Aug. 30, we saw a smoke plume, over six million square kilometers covered by smoke.” Smoke hovered over parts of Brazil, Bolivia, Paraguay and Uruguay, she said.

While starting fires in the virgin rain forest takes deliberate action, in this year's brittle heat the chance cigarette thrown out a car window can start dramatic conflagrations in previously cleared areas, with the flames rolling over twigs, shrubs and dry leaves.

Setzer and other ecologists could not be certain about the extent to which the fires involve first-time clearing of virgin rain forest because after the 1992 Earth Summit, Brazil virtually stopped analyzing the 230 or so annual Landsat satellite images that provide an overview of deforestation, government officials said. Apart from isolated areas within the Amazon, the most recent wall-to-wall analysis of deforestation is based on images from 1991.

Though officials here say that international accords require Brazil to analyze the images only every five years, government ecologists acknowledged that analyzing them steadily was crucial to understanding the extent of destruction.

To critics, the gap in monitoring also throws into doubt repeated assertions by the Brazilian government that destruction of the rain forest has slowed in recent years.

“To the extent that the images are the only real data on the total deforestation of the Amazon, then the absence of the data would suggest that Brazil's claims are, shall we say, smoke and mirrors,” said Stephan Schwartzman, a senior scientist at the Environmental Defense Fund, a private American group.

Schwartzman, who works in Washington and Brasilia, said that officials from Brazil's environmental agency were typically upbeat when questioned in Congress about cracking down on illegal logging and deforestation. "But I've never heard a coherent account of what they're actually doing on the ground," Schwartzman said.

Barbosa, the space research director, said the analysis of the data had stopped because the Brazilian Congress had stopped allocating the \$500,000 a year needed to contract the 50 or so scientists to do it, though the Institute's total budget amounts to some \$25 million. "It's simply because we didn't have the money to do it," he said.

After the enormous expense of the Earth Summit and the international attention it received, Barbosa said, he appealed to government and congressional officials for money to continue analyzing deforestation, but interest seemed to wane.

"After that, we did not receive the same priority to maintain this study," he said. "It's a strange thing to have \$25 million to fund a variety of programs and not \$500,000 to get this very basic information."

Thelma Krug, head of the government institute's remote sensing department, said her agency could still answer isolated questions by analyzing spot data. "But when you think we have to answer broader questions about global change, this information is really necessary and extremely fundamental," she said.

Barbosa said that based on the images from 1989 to 1991, he believed destruction of the rain forest had slowed as a result of government initiatives, but he had no complete information to substantiate the claim.

He said that in recent months, President Fernando Henrique Cardoso had ordered the space agency to resume analysis of the Landsat images, which the agency had been collecting but not analyzing, and had provided the money through a special allocation.