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Brazilian president Dilma Rousseff (left) has chosen climate-change sceptic Aldo Rebelo (right) to lead her science ministry.

ENVIRONMENT

Political appointments spur concerns for Amazon

Environmentalists worried after Brazilian president picks ministers with ties to agriculture lobby.

BY JEFF TOLLEFSON

Brazilian president Dilma Rousseff survived an unexpectedly strong challenge from a prominent environmentalist to stay in office. Now, less than three months into her second term, Rousseff has sparked controversy by appointing an avowed climate-change sceptic as science minister.

The choice of Aldo Rebelo, a Communist law-maker who last July called the idea of global warming “incompatible with current

knowledge”, follows a decade in which Brazil has slowed Amazon deforestation and claimed a leadership role in international climate policy. Rebelo promised to uphold the government’s climate stance when he assumed his post at the Ministry of Science, Technology and Innovation on 2 January, but his appointment has stirred fears that Brazil may backslide on environmental protection.

“In general, scientists are sceptical and disappointed,” says Jean Ometto, coordinator of the Earth System Science Centre at the

government’s National Institute for Space Research in Sao Jose dos Campos. “But the scientific centre is strong, and there’s going to be pressure from the scientific community not to change the way that climate change is governed.”

Rebelo earned his reputation as a skilful politician in the lower house of Brazil’s National Congress, and he played a leading part when the ‘ruralistas’ — a voting bloc representing rural agriculture — weakened protections for Brazil’s forests in 2012. Most scientists say that Rebelo largely ignored the scientific ►

► community during that debate, although some think that he may move to the political centre as minister of science.

In a written statement provided to *Nature*, Rebelo dismissed concerns about his position on global warming. “The debate about climate change exists independent of my opinion,” he said. More broadly, Rebelo said that his duty as minister of science is to listen to — and fight for — the academic and scientific community in Brazil.

He has limited power to influence climate policy, although the ministry does oversee some national assessments and some climate reports to the United Nations. One area that will receive considerable attention is the ministry’s funding for science, which has been squeezed by competing demands in recent years.

But Rebelo is not the only appointment to raise eyebrows. Rousseff named Kátia Abreu, who fought environmentalists as a senator and agricultural lobbyist, to head Brazil’s agriculture ministry. And both appointments come at a sensitive time: although the rate of Amazon deforestation has dropped by 82% since 2004, the pace of land clearing spiked sharply in 2013 — and it seems to be on the rise once again.

Rousseff has never had a good relationship with environmentalists, who say that she is hiding behind Brazil’s relative success in reducing deforestation while pushing for major dams and ports that will only increase pressure on forests. Now, after a bruising election, she is looking to rebuild support in Congress in the middle of corruption scandals that have tainted her party.

The Communist party, of which Rebelo is a member, has been a “small but loyal” member of the governing coalition led by Rousseff’s Workers’ Party, and it is also friendly with the agricultural caucus, says Steve Schwartzman, an anthropologist with the Environmental Defense Fund in Washington DC, who has worked in Brazil for decades.

One key to Brazil’s success in curbing deforestation and carbon emissions over the past decade was the involvement of multiple agencies, but that kind of coordinated approach could be more difficult today, Schwartzman says. “These ministerial appointments cast a lot of doubt on what we can expect from this government.”

Helena Nader, president of the Brazilian Society for the Advancement of Science, takes a more conciliatory approach: she says that scientists should give Rebelo some time at the ministry before judging him. More broadly, Nader says that she isn’t expecting a major backslide on environmental issues by the new Rousseff government.

“Nevertheless,” she says, “only time will show.” ■

The cat genome is out of the bag, and has already helped to pinpoint a gene involved in kidney disease.

GENOMICS

‘I can haz genomes, too’

Cats sparked an Internet meme complete with its own grammar, but dogs have dominated genetics labs — until now.

BY EWEN CALLAWAY

Cats may have beaten dogs on the Internet but felines have been a rare breed in genetics labs compared with their canine counterparts. Now, at last, cats are clawing their way into genomics.

At a meeting this week in San Diego, California, a close-knit group of geneticists unveiled the first results from an effort to sequence the genomes of 99 domestic cats. The work will benefit both humans and felines, the researchers say, by mapping the mutations underlying conditions that afflict the two species, such as kidney disease.

“It’s a great time to be in cat genomics,” says William Murphy, a geneticist at Texas A&M University in College Station who is involved in the effort. Plummeting costs for DNA sequencing now make it possible to do genomics cheaply — and cat genomics, long under-funded compared with similar efforts in dogs, is benefiting, he says. “We’re finally at the point where we can do all sorts of things we wanted to do 5 or 10 years ago.”

The first cat genome sequence¹ — from an

Abyssinian named Cinnamon — was reported in 2007. But the sequence contained significant gaps and errors, which slowed efforts to map genes. A high-quality version of Cinnamon’s genome was not published² until late 2014. Domestic dogs, meanwhile, have become a darling of geneticists: their full genome³ was reported in 2005, and the sequence has been continually improved. Hundreds of genes underlying canine diseases and traits are estimated to have been discovered, compared with as few as a dozen for cats.

The discrepancy can be traced back to the early 2000s. After the completion of the human, mouse and rat genomes, the US National Institutes of Health organized a commission to decide on their next target; the dog genome was selected for high-quality sequencing, whereas cats were put on hold.

That got some cat geneticists’ backs up. “The truth is there were more powerful people interested in dogs,” says Stephen O’Brien, director of the Theodosius Dobzhansky Center for Genome Bioinformatics in St Petersburg, Russia, who led the initial cat-sequencing efforts.

But canine researchers were able to make a