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The increasing rate of deforestation in the Brazilian Amazon has driven up the country's greenhouse-gas emissions.

POLICY

Brazil debates loosening environmental protections

Barrage of proposals would allow developers to sidestep environmental reviews.

BY JEFF TOLLEFSON

Environmentalists in Brazil are feeling the heat. Conservative lawmakers want to weaken the country's environmental regulations to clear the way for rapid development of energy facilities, mines and agriculture — in the Amazon and beyond. Their push comes at a time of economic and political turmoil following the impeachment in August of former President Dilma Rousseff.

"It's an offensive against our regulatory system," says Mauricio Guetta, an attorney with the Socio-Environmental Institute, an advocacy group in São Paulo.

More than 20 legislative proposals are circulating in the Brazilian Congress to loosen regulations governing activities such as building roads and hydroelectric dams or expanding agricultural businesses. One proposed constitutional amendment would ensure approval of a project once its developers

have submitted an environmental-impact analysis — essentially eliminating government review. That proposal has stalled in the Senate, but the government of President Michel Temer is developing its own legislation to overhaul the environmental-licensing system, which many consider ineffective.

"Something will happen, most probably in the wrong direction," says Nilvo Silva, a former head of the licensing division of the Brazilian Institute of Environment and ▶

► Renewable Natural Resources, an environmental-enforcement agency.

The debate comes during Brazil's worst recession in decades, and follows corruption scandals that brought down Rousseff and her leftist Workers' Party. The Brazilian Democratic Movement Party has taken the reins but it, too, has been tainted. Several cabinet members have resigned, and corruption investigations are continuing — with Temer in the crosshairs.

The embattled president has promised to maintain Brazil's environmental agenda, including its commitments under the Paris climate agreement. But agricultural and business interests are pushing back against environmental protections set by the Workers' Party under Rousseff's predecessor, Luiz Inácio Lula da Silva, endangering more than a decade of progress on issues such as deforestation.

"They keep paying lip service to environmental issues, but we can't be confident in the implementation of policies," says Paulo Barreto, a senior researcher at the Amazon Institute of People and the Environment, an activist group in Belém.

Much of the concern centres on the Amazon, where the rate of forest loss has increased by nearly 36% since 2012. More than 6,200 square kilometres of land were cleared for agriculture in 2015, and many expect that

number to increase when the 2016 data are released next week. The deforestation helped to increase Brazil's overall greenhouse-gas emissions by 3.5% in 2015, even as emissions from the energy sector fell, according to a 27 October report by the Climate Observatory, a coalition of advocacy groups in São Paulo.

Brazil's environment minister, José Sarney Filho, says that some people may be taking advantage of the political crisis to clear forest. The government has responded by bolstering funding to enforce existing laws. "We expect that we will once more be on the right track of reducing deforestation," he adds.

Barreto says that part of the problem stems from changes to Brazil's forest law in 2012 that weakened rules and let many landowners off the hook for past violations. The latest efforts to streamline the environmental licensing system would further advance that agenda.

One project that could be fast-tracked if the latest regulatory changes take effect is the proposed Volta Grande mine on the Xingu River in the Amazonian state of Pará, near the controversial Belo Monte hydroelectric dam. The Volta Grande project, which would be Brazil's largest gold mine, is facing legal challenges from independent prosecutors who say that the government's analysis of its social and environmental impacts was flawed.

But it would be difficult to fight such projects in the courts if the proposed constitutional amendment were enacted, says Raffael Tófoli, an ecologist at the State University of Maringá.

Many scientists and environmentalists acknowledge that Brazil's regulatory system is slow and often ineffective. The solution is to improve environmental assessments, increase public participation in environmental reviews and give regulators more resources, says Luis Sánchez, an engineer at the University of São Paulo who conducts environmental assessments. "This is something that could be solved without changing the law," he says.

It's not yet clear what solutions Temer's government will propose. Green groups say that the environment ministry's first draft of a proposal to reform the licensing process expanded the focus from individual projects to the social and environmental effects of development across an entire landscape. But that proposal is now circulating among other ministries that oversee activities such as mining, energy and infrastructure, and some observers say that the latest leaked drafts show that the plan is being watered down with concessions to industry.

"We are all waiting for the government to present this bill," says Guetta, "but we are seeing the text get worse every day." ■

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UK POLICY

Brexit chancellor's annual address is science nail-biter

Government's first Autumn Statement could reveal how it regards science.

BY ELIZABETH GIBNEY

Since the United Kingdom voted to leave the European Union, science has existed under a cloud of uncertainty. The future of international collaboration and the mobility of scientists is in limbo. And the government overhaul that followed the June vote included a

reshuffle of government ministers, the creation of two departments to implement Brexit and a new prime minister.

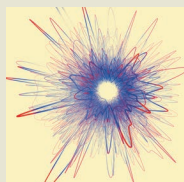
Hints of how the new guard (see 'Science in flux') regards science could come on 23 November, when the Chancellor of the Exchequer Philip Hammond lays out his financial plans in the Autumn Statement. The

annual address on the nation's finances will be the first from the new 'Brexit government'.

"The Autumn Statement is a real nail-biter for scientists," says cell biologist Jennifer Rohn at University College London, an executive board member of the lobby group Science is Vital. "In the past, even when we've been unsure of the specific outcomes, we've at



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