



Scientists gather in Cali to protest a proposed 42% cut to Colombia's national science agency.

SCIENCE FUNDING

In Colombia, peace dividend for science proves elusive

Scientists protest steep budget cuts floated for 2018

By Lizzie Wade

Wearing lab coats and hoisting placards with slogans such as “A country without science is a country without a future,” hundreds of scientists poured into plazas in cities across Colombia on 24 August. Their beef: a proposed 42% cut to the 2018 budget of Colciencias, the nation’s science ministry in Bogotá, which doles out research grants and supports graduate students. Cutting science “shows a lack of vision and understanding,” fumes Juan Posada, an ecologist at El Rosario University in Bogotá.

Posada and many colleagues had hoped 2018 would usher in a new era for science in Colombia. Earlier this year, the guerrilla fighters of the Revolutionary Armed Forces of Colombia demobilized after 52 years of war with the state, under a peace deal negotiated by Colombian President Juan Manuel Santos. The end of the war offered a chance for biologists to study areas once occupied by rebel groups (*Science*, 21 October 2016, p. 271). And for all scientists, it seemed to promise new investment. During the long conflict, Colombia had few resources left over for science; in 2015, for example, it spent a minuscule 0.24% of its gross domestic product on R&D, according to Colciencias. Santos seemed poised to change that, dubbing innovation a “locomotive” that would drive Colombia’s economy in the postconflict era.

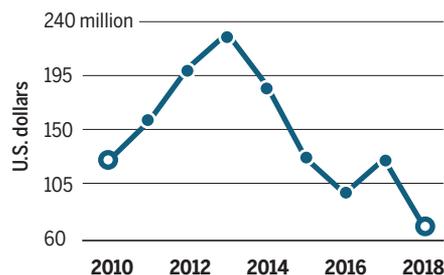
The 2018 budget proposal reveals “a deep disconnect” between the govern-

ment’s rhetoric and reality, says Diego Torres, a nuclear physicist at the National University of Colombia’s Bogotá campus. Colciencias’s budget increased during Santos’s early years in office, from 243 billion pesos in 2010 (\$128 million) to a high of 430 billion pesos in 2013 (\$230 million). But it is set for a precipitous drop next year. The government’s 2018 proposal, released on 28 July, would slash Colciencias’s funds from 379 billion pesos (\$128 million) in 2017 to 221 billion pesos (\$75 million) in 2018. “It’s going from bad to really bad,” Posada says.

Low oil prices have hit this oil-exporting nation hard, and many other government programs face steep declines. The environment ministry, for one, would absorb a 25% cut. Defense spending, however, is slated to rise 8%. “We all thought that with the peace

A precipitous fall

After a meteoric rise from 2010 to 2013, Colombia’s science budget has plunged. Low oil prices are battering the oil-exporting country’s government coffers.



process, the resources going to the Ministry of Defense would be redirected to other areas, including innovation,” says Jairo Alexis Rodríguez, a particle physicist at the National University of Colombia’s Bogotá campus.

The Colciencias cuts come on the heels of a foundering national experiment to boost support for science. In 2011, the government dedicated 10% of royalties from mining and oil drilling to a new Fund for Science, Technology, and Innovation. “It was a beautiful idea,” says Carlos Duque, a condensed matter physicist at the University of Antioquia in Medellín. But governments in states where resources are extracted administer the fund, with governors choosing which projects get financing. That creates a punishing bureaucracy and allows funds to be diverted from science to short-term local projects, Posada says. (New measures unveiled on 30 August are designed to make applying for a grant more transparent.)

“Colciencias and a peer-review system should have been the ones to decide [how to spend royalties],” says Susana Caballero, a biologist at the University of the Andes in Bogotá. “It was really a lost opportunity.” Late last year, Santos himself redirected 1.5 billion pesos (about \$500,000) from the fund to build roads in rural areas.

This type of rural development, which is expected to skyrocket as peace takes hold, makes environmental research and monitoring all the more critical, Caballero says. Unchecked development could quickly degrade ecosystems once sheltered by conflict, such as one in Vichada state, on the border with Venezuela, where Caballero discovered what may be a new species of freshwater stingray. Cuts to the environmental ministry will eviscerate monitoring efforts, she says, and the Colciencias cuts could crimp genetic studies she and others hope to do on a burgeoning number of new species.

Colciencias’s director general, César Ocampo, told the newspaper *El Tiempo* that he is lobbying to claw back funding. “Just like the rest of the academic and scientific community, we are very worried,” he said. Colombia’s Congress must vote to approve the budget next month, and in the meantime legislators can push for revisions; a few have voiced opposition to the Colciencias cut. Some researchers are optimistic that the protest, social media campaigns, and a petition with more than 27,000 signatures might convince Congress to reconsider the draconian cut. “It will depend on how much noise we make, in part,” Posada says. But others have come to accept that in Colombia, the new era for science is nowhere in sight. ■

Downloaded from <http://science.sciencemag.org/> on June 25, 2018

CREDITS: (PHOTO) KELLY JOHANA RODRIGUEZ DURÁN; (GRAPHIC) R. STONE/SCIENCE; (DATA) COLCIENCIAS; MINISTERIO DE HACIENDA

Science

In Colombia, peace dividend for science proves elusive

Lizzie Wade

Science **357** (6355), 958.

DOI: 10.1126/science.357.6355.958

ARTICLE TOOLS

<http://science.sciencemag.org/content/357/6355/958>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.