Funding

Brazil's researchers dismayed as science budget is cut

Brazil's 2011 science budget will be cut by almost a fifth to help reduce public expenditure and control raging inflation. The budget, which was announced in February by Brazil's recently elected President Dilma Rousseff, will now stand at $3.84bn – some 18% less than last year. The savage cut was announced after Rousseff vetoed a $4.4bn package that had already been approved by the country's congress, which would have amounted to a rise of 7%.

The cuts have shocked researchers, who had benefited from the strong support for science from former president Luiz Inácio Lula da Silva. During 2003 and 2010 Lula doubled the country's science budget, the number of student in public universities and the number of grants for researchers. As Rousseff's government was presented during the general-election campaign as a continuation of that of Lula, scientists trusted she would go on supporting science, especially as she had promised to turn Brazil into a "scientific powerhouse".

Agência Brasil

Cutting costs
Brazil's recently elected President Dilma Rousseff has announced an 18% cut to the country's science budget much to the shock of physicists.

It is not clear yet where the cuts will be made but research projects in universities and institutes are likely to be the first to be hit. However, large scientific projects, such as the Brazilian Synchrotron Light Laboratory, are likely to remain unscathed.

Brazilian scientists are hopeful that the cuts will only be temporary. In 2009, for example, an 18% cut in the science budget was reconsidered following protests from the country's scientific community. "Despite previous cuts, Brazil has kept a consistent rhythm of development during the past decade," says Ronald Cintra Shellard, deputy director of the Brazilian Center for Research in Physics (CBPF), in Rio de Janeiro.

Gabriela Frías Villegas

Gravitational waves

India considers joining Australian bid

Seven Indian institutions have proposed joining the Advanced Laser Interferometer Gravitational Observatory – a US–Australian effort to build an advanced gravitational-wave detector. The Indian scientists would help to commission the facility during 2011–2017 and contribute equipment for LIGO-Australia's sub-systems such as ultrahigh-vacuum components for the detectors. The proposal is currently being evaluated by both the Department of Science and Technology and the Department of Atomic Energy for approval.

Last October the US announced that it would build one of its advanced gravitational-wave detectors at Gingin – about 80 km from Perth – to help determine the origin of such waves, which have never before been detected (see *Physics World* November p10). In early March the LIGO-Australia proposal was submitted to the Australian science minister Kim Carr for a decision. The five-university Australian Consortium for Interferometric Gravitational Astronomy has since been seeking to include other countries, such as India and China, to cover some of the $140m costs of LIGO-Australia.

"We are certain that Australia would not fund unless there are international partners," says David Blair, director of the Australian International Gravitational Research Centre. "There are so many mutual benefits for our major regional partners India and China to be involved that I believe that the proposal is much more compelling with their inclusion."

There are so many mutual benefits for India and China to be involved

The seven collaborating institutions in the Indian Initiative in Gravitational-wave Observations (IndIGO) consortium include the Tata Institute of Fundamental Research (TIFR), the Inter-University Centre for Astronomy and Astrophysics in Pune, and the Indian Institute of Science Education and Research in Thiruvananthapuram.

If India joins LIGO-Australia, researchers hope their resulting experience might enable a gravitational-wave detector to be built in India. First mooted in 2007, the TIFR even approved a 3 m interferometer prototype at the institute in 2009 at a cost of $450 000. The project is part of a roadmap for a 4 km baseline instrument. "LIGO-Australia is the best pathway and opportunity for Indian participation in the global programme of gravitational-wave research and astronomy," says Bala Iyer, a gravitation theorist at the Raman Research Institute in Bangalore and chair of IndIGO's council.

Ramaseshan Ramachandran
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Sidebands

Australia's chief scientist quits

Penny Sackett, Australia's first full-time chief scientist, has resigned only half way through her five-year term, citing both "professional and personal reasons". Sackett took up the post in September 2008 after the Labor government, led by former Prime Minister Kevin Rudd, made the position full-time. Sackett obtained a PhD in theoretical physics at the University of Pittsburgh before switching to astronomy. Since 2002 she has been a professor at the Australian National University, a position that she retained during her time as chief scientist. "She has been a terrific communicator at home and abroad, and has helped convey complicated messages about the issues confronting Australia," science minister Kim Carr said in a statement. The Australian government is now seeking a replacement.

Carbon-capture plant picks site

The US Department of Energy (DOE) has announced that the $1.3bn FutureGen carbon-capture demonstration plant, which will involve adapting a 200 MW coal plant that closed last year at Meredosia in Illinois, is to inject its sequestered greenhouse gases into underground rocks at a site some 5 km away in Morgan County. The DOE chose Morgan County as it is relatively close to the Meredosia power plant, thereby simplifying pipeline routing and reducing the project's overall cost. The DOE also highlighted the area's "high-quality geology", which makes it well suited for the long-term storage of carbon dioxide. However, the site still needs an environmental review and permits before carbon can be buried.

Fear over emissions vote

US climate scientists have raised concerns after the energy and commerce committee of the House of Representatives voted last month to remove the Environmental Protection Agency's regulatory control over greenhouse-gas emissions. Most Republicans on the committee say the agency's control is unnecessary and damages commercial competitiveness. "We can have a good-faith debate about how to deal with the challenges and threats of human-caused climate change, but we cannot have a good-faith debate about its existence," says climate scientist Michael Mann from Pennsylvania State University. "Those who deny the very reality of the problem are poisoning the discourse and potentially causing great harm to us all."