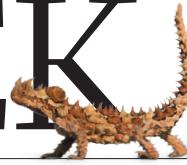


THIS WEEK



EDITORIALS

WRITING Tracking the shifting norms of academic language **p.140**

WORLD VIEW The insect extinction crisis we can't ignore **p.141**

DRINK UP Thorny devil could drain water from wet sand **p.142**

Environmental rights

Brazil is suffering from both an economic and a political crisis, but eliminating basic environmental protections is no solution.

Brazil has had its ups and downs when it comes to protecting the environment, but on paper, at least, many of the country's policies are admirably green. The right to an "ecologically balanced environment" is even enshrined in the Brazilian constitution. Now, however, a loose-knit coalition of agricultural and industrial interests is working to undermine the government's authority — and constitutional obligation — to protect the environment.

At issue is Brazil's environmental-licensing system, which governs infrastructure projects ranging from petrol stations to ports, dams and mines. Following international norms, the Brazilian environment ministry reviews and assesses such projects to ensure that they follow the law and protect the environment without infringing on the rights of local communities. This is a cornerstone of modern environmental regulation, but pro-business lawmakers are concerned that it is getting in the way of progress.

As discussed in a News story on page 147, a variety of proposals to streamline the process have been floated in the Brazilian Congress. All are headed in the wrong direction.

The debate has simmered for years, but conservative lawmakers are now capitalizing on the economic recession, corruption scandals and political turmoil that have rocked the country in recent years. Many of the same business interests were behind the 2012 law that weakened protections under Brazil's 1965 Forest Code, a landmark piece of environmental legislation that governs forested lands across the country.

Together, these efforts mark a backlash against the regulatory efforts that helped Brazil to slash the rate of deforestation to a historic low of 4,571 square kilometres in 2012. Since then, however, it has gone up by more than one-third, and could go higher when Brazil releases the numbers for 2016 in the coming days.

As it stands, the Brazilian government has a national plan for energy infrastructure that extends to 2030 and is heavily weighted towards hydroelectricity. The problem is that the plan was apparently produced with little public input, and contains only a simplistic assessment of the environmental and social impacts of installing dams in the Amazon. Once dams are formally proposed, they hit a wall of public opposition.

One solution is to bolster public participation and environmental review during such strategic planning processes. This would enable a broader dialogue among communities, indigenous groups, companies and government officials about where such projects can be placed with the least environmental and social impacts. The process could also focus on the cumulative impacts across the Amazon biome, rather than just the local effects of a particular project. This would take time and resources, but it might head off some of the protests and legal challenges that afflict so many projects today.

The idea of instituting strategic environmental assessments was included in early drafts of environmental-licensing legislation being developed by the environment ministry. This would be a step in the right direction. And if Brazil looked broadly at energy options, it might

also discover that wind and solar electricity offer better opportunities in many places around the country, with fewer risks and headaches. Hydropower has helped Brazil to maintain a low-carbon footprint up until now, but the country should be wary of betting its future on rainfall that may shift to another region as the planet warms in the coming decades.

"Partnerships helped to drive down deforestation, and everybody benefited."

Over the past decade, major beef and soya-bean exporters have made commitments to ensure that they are not contributing to deforestation in Brazil, including by signing moratoria on the purchase of products that come from recently cleared land. Those partnerships among businesses, environmentalists and governments helped to drive down deforestation, and everybody benefited. Today, the powerful agricultural sector continues to grow, despite the recession. But Brazil's reputation, as well as that of its most powerful industry, is back in the balance. ■

Set prejudice aside

Fair evaluation of science requires that the work is judged on its merits, not on assumptions.

In April, for the first time, a couple gave birth to a healthy baby conceived using a new technique that mixes the DNA from three people. This mitochondrial replacement technology seems to have eliminated the disease, the group that performed the procedure announced in September. The scientists and clinicians at the New Hope Fertility Center in Mexico were proud that it happened in their country.

That pride soon turned sour. Scientists and ethics societies elsewhere — who have spent years drawing up guidelines for such a procedure — responded to the surprise announcement with criticism. In interviews and at meetings, researchers and experts raised vague doubts about whether the New Hope team had properly informed their patients, or whether it had broken laws. They pointed out the number of back-alley, questionable stem-cell treatment clinics that exist in Mexico. The implication was clear: the group that did the research had not played by the proper rules, by which they meant the rules the experts themselves had agreed.

New Hope's clinic in Guadalajara is inspected for quality by federal regulators, and the researchers say that an institutional review board (IRB) had approved the mitochondrial replacement project in accordance with federal law. "Why is an IRB in the UK better than ours in Mexico?" medical director Alejandro Chávez-Badiola asked