COMMENT

RIO SUMMIT Four steps to help corporations get greener p.27 produce is not such a good thing p.30

PUBLIC HEALTH A life spent doing battle with the Ebola virus and HIV **p.31**

VISUALIZATION Google's data artist explains how to get the message across **p.33**



Indigenous people of the Amazon protesting against construction of the Belo Monte dam, which they fear will damage the Xingu River.

Lead by example

As host nation of Rio+20, Brazil should choose the right course for its own development, say **Fabio Scarano**, **André Guimarães** and **José Maria da Silva**.

he United Nations Conference on Sustainable Development, which returns to Rio de Janeiro this month 20 years after the Rio Earth Summit of 1992, will be held under a cloud. The cities of Copenhagen, Nagoya, Cancún, Changwon and Durban have all recently played host to meetings of the three major conventions that were established at the first Rio Summit — on biodiversity (CBD), climate (UNFCCC) and desertification (UNCCD). All are now bleak reminders of humankind's inability to deliver on sustainable development goals. So does Rio stand a chance of being more than just a collective moan about past failures?

The answer depends in large part on the actions of the host country, which can set the tone for such meetings. Brazil offers cause for optimism — it has progressively led negotiations to set ambitious sustainable development targets for the planet in recent years¹, and some innovative projects are under way at the state level. Yet the federal government has made decisions on home turf that go against the same global policies that it advocates.



Brazil is at a crucial juncture, and needs to decide whether to develop sustainably, or in traditional ways that endanger natural capital. As one of 17 nations that together contain 70% of the planet's biodiversity, Brazil is 'megadiverse'; it holds 12% of the world's fresh water, and is the largest terrestrial carbon sink. It is also thriving financially: the country survived the economic crisis, becoming the world's sixth largest economy. Yet Brazil ranks 84th on the United Nations Development Programme's human development index, owing to problems with social inequity and poverty. This makes it the perfect venue for the Rio+20 meeting, which will focus precisely on how to increase

human well-being while maintaining or enlarging natural assets. If it is to lead by example, the nation must choose the right course for further development now.

Biodiversity conservation is one area in which the nation is facing a critical decision point. In 2003–08, Brazil was responsible for 70% of new land protection on the planet: about 50% of the Brazilian Amazon is now inside protected areas and indigenous territories, which has substantially reduced deforestation rates. But 2011, the first full year of office for President Dilma Rousseff, saw an embarrassing mark on its track record: for the first time in more than 15 years, the federal government did not create any new protected areas and, worse, it reduced the area covered by some of them.

DAM DAMAGE

The government has allowed the creation of new hydropower plants on undisturbed Amazonian rivers at the expense of indigenous locals and the environment — allegedly because of the nation's growing energy needs. It accelerated the construction of the Santo Antônio and Jirau dams on the Madeira River in 2009, and the Belo Monte dam on the Xingu River in 2011.

In January 2012, it decided to reduce the size and move the boundaries of eight protected areas in the Tapajós region in central Amazon to allow construction of yet more dams. That move was challenged in Brazil's Supreme Court in February by the federal public ministry, which said it was unconstitutional. But in May, Brazil's Congress approved the government's decision. With the construction of the Tapajós dams yet to begin, there is hope that this decision might be reversed. There are alternatives: the country should instead consolidate power generation on the rivers that already provide 80% of its energy, increase efficiency in energy transmission and invest seriously in research on alternative energy sources.

In 2010, Brazil's Congress launched an innovative policy to reduce the carbon footprint of agriculture, by providing incentives for farmers to use sustainable practices that mitigate and reduce greenhouse-gas emissions. Yet in late April 2012, the same Congress approved changes in Brazil's Forest Code that forgive past acts of illegal deforestation, thus reducing the requirement for rural landowners to conserve or restore natural land cover on their properties. The government's Institute for Applied Economic Research estimates that, as a result, nearly 47 million hectares of natural ecosystems could be lost in years to come²

This seriously undermines Brazil's commitment to reduce Amazon deforestation by 80% by 2020, made by former president Luiz Inácio Lula da Silva at the Copenhagen

climate conference in 2009. The last hope for a reversal of this ugly scenario lies with a partial veto from President Rousseff, who rejected some of the proposed changes on 25 May — but this must still be approved by the Congress.

Brazil does not need more deforested land to increase its agricultural production³. The country has some 60 million hectares of fertile soils that are currently being used for unproductive cattle-raising at an average of one head of cattle or fewer per hectare. By comparison, 62 million hectares are being used for highly productive, modern agribusiness. By making cattle-raising more intensive and expanding agriculture into the freed space, Brazil could arguably double its production of food, fibres, fuel and commodities without cutting down a single tree. Such land reform, however, is a politically sensitive issue.

The Brazilian Congress will face another

"Some intriguing green economy initiatives have emerged at the municipal and state level."

controversy in July 2012. It will vote on a bill that would allow mining activities inside indigenous reserves by paying royalties to indigenous peoples.

With regard to marine conservation, Brazil negotiated in favour of a 10% marine protection target by 2020 at the last CBD conference in Nagoya, Japan, in 2010. Yet only 1.5% of its exclusive economic zone is protected, and an estimated 80% of Brazilian marine fisheries are overexploited. More marine protected areas are obviously needed. Yet some estimates indicate that nearly 9% of priority areas for marine conservation have already been conceded to oil companies in Brazil for offshore exploration⁴.

LOCAL LEADERSHIP

These examples clearly show that the government often acts as if development and environmental conservation were opposing forces. Yet some intriguing green economy initiatives have emerged at the municipal and state level.

In the Amazonian state of Acre, for example, a community-run, sustainable forest-management system that was launched in 2000 resulted, on average, in a two- to three-fold increase in farmers' incomes by 2001, and a 12-fold increase in the value of rural property by 2012, compared with non-participating farms^{5,6}. A few years after Amapá state initiated a conservation network to protect 72% of its territory in 2003, the state showed some of the highest annual growth rates for human development in Brazil. And in 2007, the state of Amazonas launched the Bolsa Floresta programme, an initiative that provides financial compensation and health

assistance to locals in exchange for zero deforestation of primary forests⁷.

In another example, the state of Espírito Santo has launched a project to restore 200,000 hectares of altered landscape by 2025. The intention is to create natural corridors between remnants of native vegetation, to protect water resources and to provide alternative job and business opportunities in a state where oil, mining and forestry are expanding rapidly.

The federal government needs to follow these examples and do more to turn Brazil into a green superpower. In particular, we would like to see Brazil use Rio+20 to launch a \$3-billion green development fund. The money could come from environmental compensation agreements with energy and mining industries; for example, Norte Energia, the company building the Belo Monte dam, is meant to pay the government some 3.3 billion reais (US\$1.6 billion) alone, and the compensation for new offshore oil development is still under debate. This fund could be used for more initiatives at local and state level that promote human well-being while maintaining or enhancing natural capital. Perhaps 20% of the fund could be reserved to help other nations in South America and Africa to follow the same track. Such national commitments are not unprecedented: in 2008, Norway donated \$1 billion to the Amazon Fund, which acts against deforestation.

The basic ingredients for Brazilian leadership are in place: political and economic stability, growing institutional capacity, a strong private sector, globally competitive academia and abundant natural capital. The country has a moral obligation to help Rio+20 to succeed. We hope that it takes such steps. The planet cannot afford to wait until Rio+30 for action. ■

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