SPECIAL REPORT

Developing nations tackle climate

Emissions targets, clean-energy projects and calls for justice are multiplying, reports **Jeff Tollefson**.

Following up on a non-binding pledge to halve its emissions by mid-century, the Mexican government is finalizing regulations that would curb the country's projected emissions by more than 6% over the next three years.

The goal of the regulatory programme, driven by President Felipe Calderón, is to demonstrate actual emissions reductions — totalling 50 million tonnes — before his government leaves office in 2012. It is meant as a down payment toward Mexico's pledge of halving emissions by 2050, the most aggressive planned cut among developing nations so far.

The new programme, which is expected to be finalized this month, is “our way of proving that you can take the climate change issue seriously and still lay a sound foundation for development”, says Fernando Tudela, who heads the Mexico climate delegation and helped broker the deal for a domestic programme.

With this promise, Mexico is challenging the idea that developing nations are sitting on their hands as greenhouse-gas emissions skyrocket. It isn't alone: in the run-up to the United Nations climate summit in Copenhagen in December, other developing nations have pledged their own dramatic reductions. Brazil has promised to reduce deforestation by 70% by 2017, and South Africa says it could level off emissions by 2025. Still others, including China and India, are pouring money into green-energy projects; even South Korea, which gets most of its energy from fossil fuels, plans to funnel some US\$40 billion into clean energy over the next several years.

Whether developing countries deliver on these promises remains to be seen, particularly given their reluctance to accept mandatory emissions targets. But existing unilateral actions may have a larger impact than many realize. Existing commitments by Brazil, China and Mexico alone will do nearly as much to reduce greenhouse-gas emissions by next year as the European Union hopes to accomplish by 2020, according to an analysis by the Center for Clean Air Policy in Washington DC.

Still, rapid economic growth in places such as China and India is tending to swamp any gains, which means that cumulative emissions keep rising. Emissions from developing countries already surpass those of industrialized nations and are projected to rise twice as

fast as those in developed countries over the next couple of decades (see graphic, below).

“We’re beginning to see a little more appreciation about what’s going on in developing countries,” says Ned Helme, president of the Center for Clean Air Policy. “But it’s a hard message to get through.”

The gulf between developed and developing nations over greenhouse gases — and who should take responsibility for what — remains alarmingly wide. Many developing countries, including China, have argued that richer countries should curb emissions by 40% or more below 1990 levels by 2020. By contrast, the United States is talking about returning to roughly 1990 levels by 2020; even the European Union, which has the most aggressive targets of all the negotiating bodies at the UN talks, is proposing a cut of only 30% by 2020.

Meanwhile, developed and developing nations are at odds over what kind of commitments, if any, can be expected of the developing world. The dispute centres on four words — “common but differentiated responsibilities” — that are in the UN Framework Convention on Climate Change signed at the 1992 Earth Summit in Rio de Janeiro, Brazil. Those words were repeated in the 1997 Kyoto Protocol, which committed only developed nations to reducing their emissions and set up financial mechanisms to help pay for clean-energy and other projects in poor countries.

Proposals abound about how to structure a new deal in Copenhagen. But many of those being put forth by developing countries are based on historical emissions, as rich countries are mainly responsible for pollution

dating back to the industrial revolution. Last month, at a UN climate meeting in Bonn, Germany, several countries, including Bolivia, Brazil, China and India, held a technical session on the issue of historical emissions and how they could be incorporated into the next climate treaty. “This is basically the fault line between developed and developing countries,” says Lim Li Lin, a researcher with the Third World Network, a non-profit advocacy group based in Penang, Malaysia, which works with developing countries. She says proposals are increasingly linked to scientific assessments about what kind of emissions reductions are necessary, as opposed to what is politically possible. “We’re coming to the discussion with a principle-based approach,” she says.

China bases its assessment of historical emissions on the idea of a per-capita carbon budget for carbon emissions from 1850 to 2050, in which cumulative emissions, past and future, are allotted according to population. On this per-capita basis, emissions from developed countries — the ‘Annex I’ nations — are more than 10 times higher than Chinese emissions. If the goal were per-capita equity, Annex I countries would have had to stop emitting greenhouse gases entirely in 2007.

Bolivia carries this approach one step further by framing the issue in terms of ‘climate debt’. Like China, it reckons that even if Annex I countries reduce their current carbon emissions they will still have exceeded their per-capita allocation. Everything that developed countries emit above their per-capita allotment incurs a climate debt that must be repaid with either money or technology. Bolivia has already attracted support from countries such as Malaysia, Paraguay and Venezuela, and

PROJECTED GREENHOUSE-GAS EMISSIONS IN 2025

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WHO

India won't promise to cut its emissions in negotiations abroad but is building wind turbines at home.

special envoy for climate change, says India needs money and technology before it will agree to any emissions reductions targets. Even then, he adds, agreeing to any kind of hard, quantifiable targets could be difficult. Indeed, Saran's only promise is that India won't exceed the per-capita emissions of the developed world — more a threat than a promise, given that the country has more than a billion people who each use relatively little energy today.

Domestically, however, India has developed an ambitious climate agenda, points out Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change and a member of Singh's Council on Climate Change. The centrepiece of the plan, which is currently being finalized, is a programme that could produce upward of 20,000 megawatts of solar power by 2020, some 6–7% of the nation's projected power at that time, he says.

Pachauri acknowledges what he calls a “disconnect” between India's position on climate at home and abroad. He thinks this stems in part from delays to the climate agenda caused by unrelated distractions, including the terrorist attacks on Mumbai last November and national elections in May. But the government is now moving forward, he says. “I'm talking as an Indian and not as chairman of the IPCC, but I suspect by the time we go to Copenhagen, we will be more in line with our domestic and international positions.”

In Mexico, climate experts are looking at ways to combine the country's domestic and international commitments. Its proposed programme would employ cap-and-trade to reduce emissions from private industries such as cement and paper, for example, but companies that curb pollution even further would also be able to access international funds.

Mexico has also proposed a \$10-billion ‘green fund’ to help pay for things such as adaptation and technology transfer in the developing world. Under the plan, all nations would contribute to the fund based on their wealth and population; the money would be distributed to developing countries according to the same formula. The green-fund proposal tacitly acknowledges that ‘developing’ countries come in many flavours, and that many of them are in fact wealthier than ‘developed’ countries, as defined by the UN climate treaty. Mexican officials say the goal is to find a middle ground.

“We still keep the distinction, because I think it's real, between developed and developing,” Tudela says. “But we begin to blur the boundaries, accepting a new way of differentiating the responsibilities.” ■

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more than 230 advocacy organizations, including the Third World Network, have endorsed the general idea.

One organization that has not backed Bolivia's proposal, or any other formula regarding historical emissions, is the Group of 77 (G77), the largest and most diverse coalition in the UN climate talks, which in spite of its name represents some 130 developing countries, including China. The G77 has called for a centralized fund to promote technology transfer, but its members are divided on key climate issues such as emissions restriction and adaptation funding.

The Alliance of Small Island States, for instance, often pushes for aggressive action to reduce greenhouse gases because of its pressing concern over rising sea levels, while those nations classed by the UN as Least Developed Countries take the lead on demanding funding for adaptation projects. Both groups clash with members of the Organization of the Petroleum Exporting Countries, who worry about falling

oil demand as the world shifts towards renewable energy and who want international aid to diversify their economies.

Then there are major developing-world emitters such as Brazil, China, India and South Africa. These nations are big enough to get invited to the Major Economies Forum on Energy and Climate organized by the United States but frequently seek refuge within the G77, where expectations for commitments to mitigate climate change are much lower. “You have this huge issue of smaller countries that are in a way shielding larger-emitting countries from any kind of stronger commitment,” says Ana Maria Kleymeyer, a former Argentinean negotiator who consults for G77 countries. But she says that dynamic is changing as Brazil, South Africa and even China hint that they might accept binding commitments, although they won't go as far as cutting emissions.

One country that continues to take a particularly hard line on emissions is India. Shyam Saran, Prime Minister Manmohan Singh's