

Rain-forest squalor



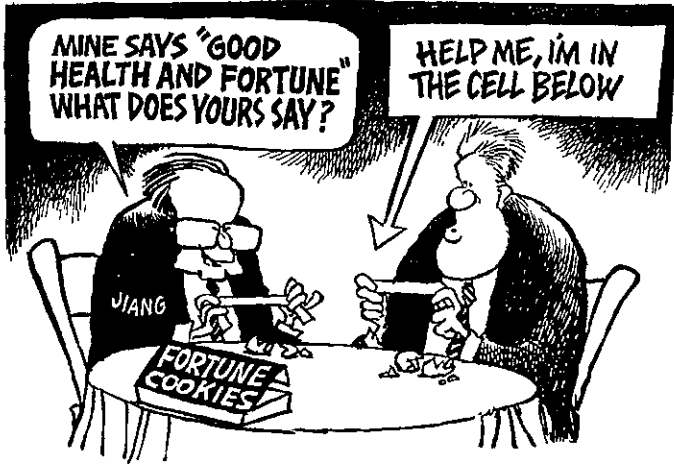
RIC ARDRE AZOUREI SABA

# The Amazon's S

# PERSPECTIVES

## “I love tackling, love it. It’s better than sex.”

England World Cup midfielder **Paul Ince**



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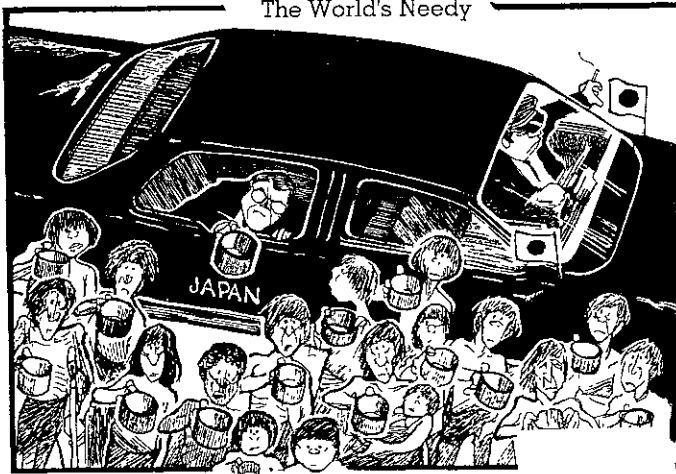
“It’s the Wild West down there.” U.S. envoy **Richard C. Holbrooke**, describing the Serbian province of Kosovo

“In Boston, the prosecutors use the media to pretty much convict you before you even set foot in the courtroom.” British au pair **Louise Woodward**, on her 1997 manslaughter conviction

“Happy solstice! It’s a great day to be a pagan!” Archdruid **Rollo Maughfling**, at the first Druid celebration allowed at Stonehenge since the 1980s

“[Clinton] won’t be getting his own toilet.” Chicago Tribune Beijing bureau chief **Liz Sly**, about a Western-style toilet with a seat and air-conditioning that the Chinese built at the Great Wall in preparation for Hillary Clinton’s visit while her husband met with Chinese leaders

### The World’s Needy



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“We are taking what is ours.” A slogan Indonesian farmers carved into the fairway of a golf club to protest the meager compensation they received when their land was taken to build the course

“It’s the first meat I’ve eaten in years.” Welsh TV anchor **Jonathan Hill**, who swallowed a fly that flew into his mouth and carried on with the broadcast. Hill is a vegetarian.

“I can only thank them for believing the truth and having guts enough to stand up for what’s right.” Convicted murderer **Henry Lee Lucas**, of the parole board that recommended his death sentence be commuted to life imprisonment. Texas Gov. George W. Bush spared Lucas’s life, arguing there was doubt as to whether he committed the crimes for which he was convicted.



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“It doesn’t really stink without Geri.” Eleven-year-old **Kate Desmond**, on the Spice Girls’ performance without the recently departed Ginger (Geri) Spice

“Keep your crew members alerted to this potential problem and perhaps even close or rope off the extreme bow access area of your vessel.” An alert issued by the Passenger Vessel Association to cruise operators, warning of “Titanic” copycats who may climb onto the prow with arms outstretched, re-enacting the “king of the world” scene in the movie

“People are not debris to be swept up for a visitor.” White House national-security adviser **Samuel R. (Sandy) Berger**, criticizing the detention of Chinese dissidents in connection with President Clinton’s visit



## The next threat to Brazil's tropical wilderness: desperately poor, dirty and dangerous urban jungles. BY MAC MARGOLIS AND BROOK LARNER

**W**ALKING INTO THE TEATRO Amazonas in Manaus, a river port in the heart of the Brazilian rain forest, is like landing on the set of a tropical fairy tale. The 19th-century theater, built during the days when the rubber boom brought wealth and worldly extravagance to the jungle, has been restored to its original splendor: massive Corinthian columns, an ornate art nouveau portico, a foyer of Italian marble and—20 stories up—a golden-tiled dome. The local elites may no longer send their laundry to France (as they once did, according to legend), but they still pack the hall to hear Beethoven and Mozart and, at a recent première, the operetta “The Merry Widow.” Reclining in plush velvet seats, spectators looking for further escape only had to gaze up at the vaulted ceiling, where the struts of the Eiffel Tower are painted in lavish detail.

But as the elegant audience paraded out of the air-conditioned opera house into the funk and steam of the Amazon night, a very different—and disturbing—reality intruded. Just below the theater’s stately granite steps, disheveled street kids trolled the run-down plaza, hawking candy and cigarettes and advertising their own startling poverty. The next morning, a local daily blared the headline: ONE MURDER EVERY 24 HOURS. And that wasn’t the worst news of the day. Health officials in Manaus, the papers reported, were scrambling to control an epidemic of dengue fever fueled by the city’s unsanitary conditions and dense overcrowding. Not far from the theater, in fact, lies the Buraco de Pinto (the little chicken’s hole), a trash-choked gully where the poor have settled in the shadow of high-rise buildings. To the west, where the pavement gives way to mud, is Valparaíso, an old farm that is now a fetid slum. Every day, new migrants arrive here, erecting hovels of wood, tin and packing crates—and adding to the burdens of a city already bursting with more than 1.2 million people.

Welcome to the Amazon, Latin America’s newest urban nightmare. No, the tropical wilderness hasn’t disappeared. Some 87 percent of the Amazon rain forest—which covers 3 million square kilometers—still stands unblemished. But the land the world likes to think of as an equatorial Eden, whose greatest threats are forest-clearing cattlemen and pioneers, now faces a less-celebrated danger: urban explosion. The Amazonian cities are the victims not of a

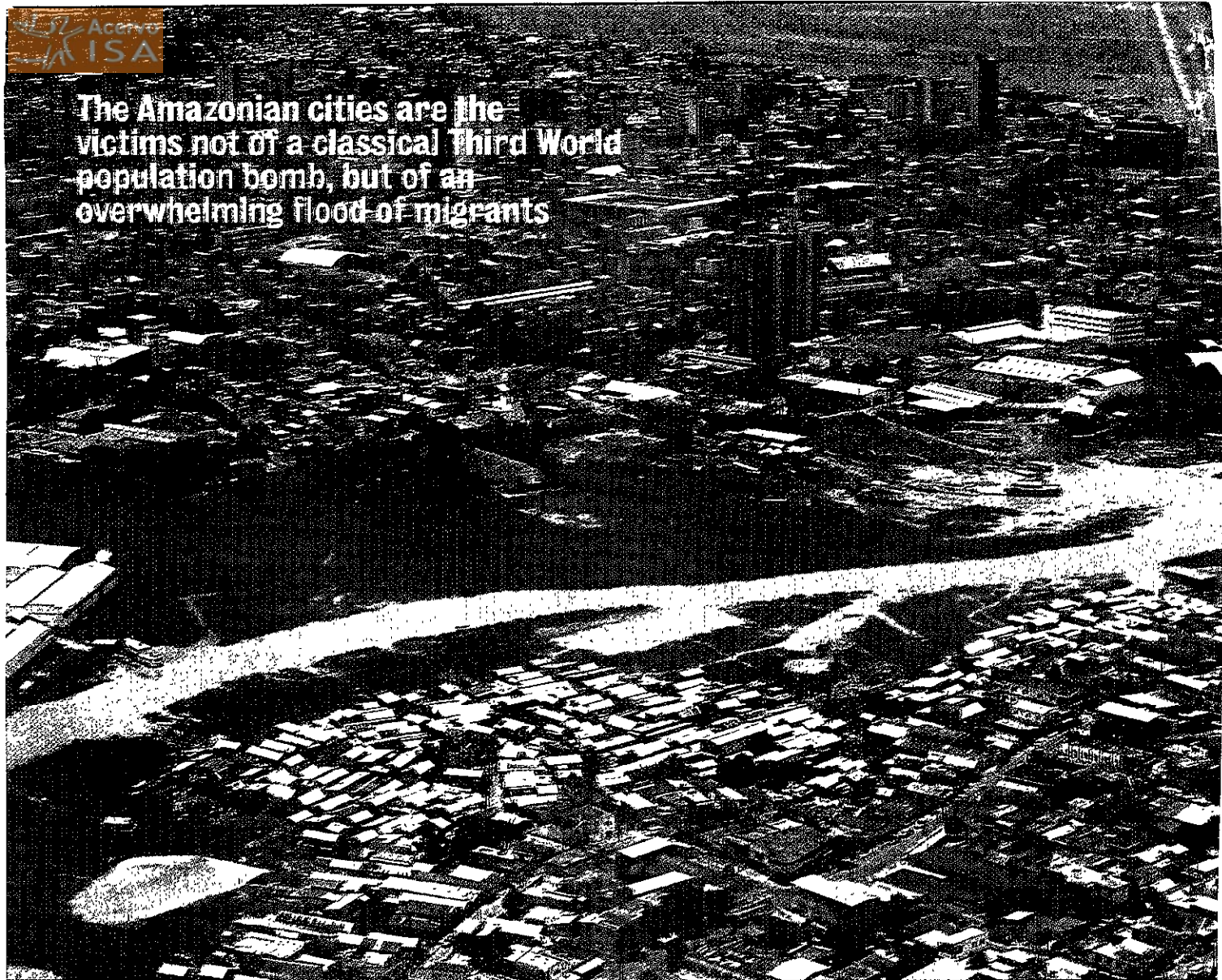
classical Third World population bomb fueled by rising fertility rates, but of an overwhelming flood of migrants, many of them urged on by a succession of governments eager to seize and shape its vast internal frontier. Two decades ago, only 6 million people lived in Brazil’s Amazonian Basin, the vast majority of them in the countryside. Today, there are 17 million people, and 60 percent live in cities—sprawling concrete jungles overgrown with tenements and office towers, flowering with crime and contagion. “Our biggest problem in the Amazon,” says Brazil’s minister of the Environment, Gustavo Krause, “is not green but brown.”

Urban boom and blight, of course, are no strangers to the developing world, least of all to Brazil, where 70 percent of the population is squeezed into megacities like São Paulo and Rio de Janeiro. Yet the ferocity of urban growth in the Amazon has caught scientists, environmentalists and planners off guard. For years “saving the Amazon” meant saving the rain forests. Thanks to celebrated activists such as Francisco (Chico) Mendes, the Brazilian labor leader and ecologist who was gunned down a decade ago, the fate of the forest is firmly on the international agenda. The rain forest now has legions of scientists examining it, activists rallying around it and—at forums such as the 1992 Earth Summit in Rio de Janeiro—diplomats forging well-meaning plans to preserve it. But for all the press and prayers that go out to the imperiled wilderness, the plight of the Amazon’s cities gets little attention—and even fewer champions. There is no Chico Mendes of the asphalt. “Everyone talks about the burnings and deforestation,” says Antônio dos Santos, an ecologist at the University of Amazonas in Manaus. “People hardly know the urban Amazon exists.”

But it is becoming harder to ignore. For the past two decades, the urbanization of the Amazon has occurred nearly twice as fast as that of the rest of the country—and with very little planning or control. Today one out of every 10 migrants in Brazil is bound for some destination in the Amazon. Some of them are farmers and ranchers who failed to scratch out a living on depleted rain-forest soils; others are new arrivals forced out of farms or factories in distant parts of Brazil; still others are drifters in search of a roof, a job or the promise of a simpler life. Not all of them are heading for Manaus, which has swelled from 30,000 people at the turn of the century to 1.2 million today. Belém, once a small port at the mouth of the Amazon River, now has 1.5 mil-

# lums

**The Amazonian cities are the victims not of a classical Third World population bomb, but of an overwhelming flood of migrants**



lion people. And two other cities in the Amazon Basin are among the fastest-growing in Brazil: Macapá, which is expanding at 7.1 percent a year, and Palmas, growing at an astounding 28 percent clip.

Much of this unbridled growth, ironically, has been inspired, even encouraged, by governments in Brasília. Like the American West, Amazonia has long been seen as the stage where Brazil's manifest destiny would be played out. The military governments of the 1960s and 1970s even turned it into an official battle cry: *integrar para não entregar*—loosely, seize the Amazon so the foreigners can't take over. With special incentives, they encouraged hundreds of thousands to move to the forest region, one of the largest migrations this century anywhere. The pioneers had an immediate impact: 80 percent of the 517,000 square kilometers of rain forest that have fallen since 1500 has been destroyed in the last three decades. From 1995 to 1997, more than 60,000 square kilometers of rain forest were cut or burned, an area the size of

**Manaus divided:** *A murky stream separates downtown from the Palafitas shantytown*

Switzerland. And the world watched last month as man-made forest fires—exacerbated by the dry conditions created by El Niño—devastated a vast area of rain forest in Brazil, Guyana and Venezuela.

But who is watching the disaster unfolding in the Amazon's cities? In 1991, when the last complete census was taken, surveyors found that 40 percent of the urban homes in Amazonia had no running water, 88 percent had no sewage pipes and half had no garbage-collection services—all more than double the national average. Illiteracy runs 25 percent higher in the Amazon than in the country as a whole, and no wonder: one quarter of all school-age children spend their days working instead of going to school. Manaus boasts the Zona Franca, a gleaming industrial park that produces motorcycles, TVs and kitchen appliances. But the streets are brimming with the jobless and underemployed; together

they comprise an estimated two thirds of the population. Ecologist dos Santos found in a recent study that so much vegetation around Manaus has been stripped that rainfall has declined measurably this century, while the average temperature has risen, from 27 to 30 degrees Celsius. Worse, the study showed that virtually all the streams draining the city are badly damaged by erosion, garbage and raw sewage. "When I was a boy I used to fish in these streams," dos Santos says. "I tell my friends we lived in the last romantic era of the city. Manaus is chaos now."

One man trying to find his way through the chaos is Elias Júnior da Costa, a stocky, 44-year-old merchant sitting on Manaus's wooden pier, waiting for a boat to take him and his family to a new life down the Amazon. Like so many pioneers, da Costa came to the Amazon 26 years ago looking for fortune and adventure. He found a little of both, but ended up losing nearly everything, first as a cattle merchant, more recently as a sidewalk entrepreneur peddling canned

**Playground?** Sewage pipes are rare in the urban Amazon

goods and electronic gadgets in Manaus. Da Costa didn't bother to apply for work in the Zona Franca. "No one wants a worker who can only sign his name," he says. Da Costa's belongings—suitcases, cardboard boxes, plastic bags and a 19-inch television—now sit on the deck of a two-tiered diesel boat. His wife, in-laws and infant son rest in cotton hammocks. But Costa, with his "Bob Marley" cap and gap-toothed smile, is busy thinking about his next destination. "As a boy I dreamed about the Amazon, a beautiful place all green and full of big snakes," he says. "I still do. This is home."

**F**ROM THE WINDOW OF a jet, the cities of the Amazon seem a distant smudge on a mottled carpet of green. Closer to the ground, the drama comes into sharper focus. Even smaller cities like Rio Branco, the capital of the densely forested state of Acre in western Amazonia, have spun out of control. Bishop Moacyr Grechi came to Rio Branco 26 years ago, when the drowsy river town had 40,000 people. But the population has swollen to 250,000, and nearly every city building, including the cathedral, is protected by gates and guards. "The cathedral has been broken into 20 times," explains Grechi, who says the city has become "ungovernable." The city center is now encircled by 40 slums, and the inexorable spread of crime, pollution, unemployment and disease spawns headlines worthy of the toughest cities. **VIGILANTES TERRORIZE NEIGHBORHOOD**, read one. **BUSINESSMAN PAYS RANSOM NOT TO DIE**, bawled another. Jorge Viana, a former mayor of Rio Branco, sees no immediate solution. "No one knows what to do with so many people," he says. "It's as though we're in the middle of an urban war."

The irony is that Acre was the home of Chico Mendes. His campaign to save the forest forced the Brazilian government to set aside millions of acres so that natural products (latex, oils, Brazil nuts) could be harvested without cutting down trees. But Mendes's successors found that preserving the rain forest was easier than making a decent living off



RICARDO IZQUIERTE—SIPA

dren who wander the streets, sniffing glue and lifting wallets. But many of the most brutal crimes, including death-squad murders, have been traced to the local police. Perhaps the most chilling specter, however, is the rampant spread of infectious diseases—including hepatitis—at the edge of town, where sprawling slums eat into the forest. One disease, Leishmaniasis, is borne by a mosquito that thrives in the stumps of felled trees. Says physician Sebastião Viana: "This is nature biting back."

With their cities near to bursting, local authorities are trying to turn back the torrents of newcomers. In Acre, agricultural experts are working with small farmers and ranchers to raise their yields without having to cut down the forest. "A successful farmer," says agronomist Judson Valentim, "is one less refugee to the city." Officials hope that new grazing and farming techniques might help recultivate 20 million hectares of abandoned pastures and farmland. To ease the pressure on Manaus, the Amazonas government has launched the Third Cycle, a project to stimulate development in smaller cities. These efforts have scored modest successes, but they are mere sandbags against the flood of migrants. "The government ought to be talking about some way to contain the flow," says Waldilson Cruz, an economist who heads the Manaus Office for Urbanization. But he adds, shaking his head: "I really don't know how."

Even the most hopeful signs are tinged with despair. A recent government study noted that the Amazon region's economy has grown an average 8.4 percent annually since 1970, well above the national level of 5.2 percent. Leading the way is Manaus's Zona Franca, which turns out some \$13 million a year in goods—double the production of a decade ago. But even as more jobless migrants arrive, automation and downsizing have cut the zone's work force from 100,000 to 59,000—with more layoffs likely as cushy tax breaks are removed. Still, says longtime Amazon scholar Philip Fearnside: "Every one of those city migrants does much less damage to the environment than he would if he stayed in the forest, cutting and burning." But even here



the advantages are not clear. With more urban mouths to feed, there is more pressure on the countryside to supply food, water and energy. And as another burning season begins this month, many of the fires that environmental groups track will actually be urban fires—as slum dwellers burn tons of uncollected garbage.

Nobody doubts that the cities of the Amazon will keep on growing. Despite their deep problems, they are important centers

for the exchange of goods, culture and ideas. “The future of the Amazon will be urban,” says John Browder, an urban planner at Virginia Tech in Blacksburg, who co-wrote, with Brian Godfrey, one of the first books on the topic, “Rainforest Cities: The Development and Globalization of the Amazon.” At this point, Browder says, the Brazilian government has neither the resources nor the political will to address the problems. As in all frontier lands, the future of the urban

Amazon will probably fall to the pioneers themselves, folks like Elias da Costa, who are fueled by a strong elixir of hope, desperation and fantasy. “I’ve worked just about every kind of job there is,” he boasts just before his boat pulls away from the dock. “And I’m not afraid of what’s to come.” With that, Costa extends a calloused hand and clambers back onto the riverboat, bound once again for a new destination, somewhere along the urban Amazon.

**The Amazon’s big problems—fires, reckless development—demand a big country’s help. BY THOMAS E. LOVEJOY**

# This Is a Job for Brazil

**W**HY THE AMAZON IS worth worrying about is well known: it is our greatest forest, greatest wilderness, greatest repository of biological diversity, flywheel of regional climate—and the greatest of all our environmental icons. But *what* should we worry about? And *whose* job is it?

Fire is the most immediate threat. The annual burning season begins in June, when the rains cease in the south of the basin. The flames move slowly north, following the dry weather across the equator to the northern Amazon, and die out in February or March. Last year’s fires were the worst ever, the result of bizarre weather and man-made havoc. Traditionally, the forest is felled, allowed to dry and then burned to clear the land for pasture or planting. But the severe drought, intensified by El Niño, aggravated these incendiary farming and grazing practices.

El Niño has largely played itself out, but its deadly effects linger. Water tables, already receding, dropped further in the drought; today the Amazon forest is drier than at any time since scientists began measuring its moisture levels. Researchers have discovered that fire can now spread to intact forest, which long had been thought too wet and dense to ignite. Recently, fire has been found to move un-



RON HAVIV—SABA

**Burning season:** Torched forest, future cattle pasture

seen along the ground beneath the canopy.

The other threats to the Amazon are less obvious. In fact, throughout the Amazon Basin, a decidedly mixed picture of pluses and minuses can be seen on almost all fronts, from sustainable development projects to the welfare of indigenous peoples. Unquestionably, a number of constructive initiatives have been launched, some by national governments including Brazil, some by green groups and others by bilateral assistance programs—not to mention the wide range of projects spon-

sored under the G-7 Pilot Program for the Brazilian Rain Forests. Increasingly, the private sector has also taken up the conservation banner, with projects including a natural-gas field developed by Shell in the Peruvian Amazon and plantation forestry sponsored by Champion Paper in Brazil’s Amapá State. Yet there are equally disturbing flows of foreign capital, cases in which firms appear to be interested in a quick profit at the expense of the environment.

The urban situation is another example of pluses and minuses. True, Amazon cities

have created a number of serious social and environmental problems. But they also take pressure off the forest. Amazonas State, a 1.6 million-square-kilometer territory in the central Amazon, boasts one of the lowest rates of deforestation in the entire Amazon Basin. Why? Mainly because the economic zone at Manaus has pulled tens of thousands of people from the countryside into the capital.

Still, it’s easy to be discouraged. The nations of the Amazon could do more to protect the forest, but too often, development and conservation are at cross purposes. Brazil, the steward of two thirds of the rain forest, has a special responsibility. But look at Brazil On the Move, an ambitious government project to create “corridors of development.” Much of it smacks of the big-ticket engineering projects of the 1970s that often eclipsed—or ignored—environmental concerns. To be fair, there is probably not a nation on earth (Amazonian or otherwise) that has successfully integrated economic and environmental concerns into a genuine policy for sustainable development. That doesn’t mean it can’t be done.

What’s needed is an integrated approach that gives equal weight to both the green and the growth agendas. Though all nine Amazon nations share a role in shaping the destiny of the rain forest, the largest burden rests on Brazil’s broad shoulders. The other Amazon nations are far more likely to play their part if Brazil does.

*LOVEJOY is chief biodiversity adviser at the World Bank.*