

A large, brown, textured sculpture of a mahogany tree trunk stands in a park. The sculpture is intricately carved with patterns and is secured with yellow straps. In the foreground, a young child in a blue tank top and grey shorts is running on a yellow and blue path. The background shows a park setting with a building, a lake, and a cloudy sky.

MAHOGANY'S LAST STAND

Illegal logging has all but wiped out Peru's mahogany. Loggers are turning their chain saws on lesser known species critical to the health of the rain forest.

A mahogany sculpture in a park in the timber hub of Pucallpa symbolizes the tree's importance.

By Scott Wallace

Photographs by Alex Webb

Mahogany is the crown jewel of the Amazon, soaring in magnificent buttressed columns

high into the forest canopy. Its rich, red grain and durability make it one of the most coveted building materials on Earth, favored by master craftsmen, a symbol of wealth and power. A single tree can fetch tens of thousands of dollars on the international market by the time its finished wood reaches showroom floors in the United States or Europe.

After 2001, the year Brazil declared a moratorium on logging big-leaf mahogany, Peru emerged as one of the world's largest suppliers. The rush for "red gold," as mahogany is sometimes called, has left many of Peru's watersheds—such as the Alto Tamaya, homeland of a group of Ashéninka Indians—stripped of their most valuable trees. The last stands of mahogany, as well as Spanish cedar, are now nearly all restricted to Indian lands, national parks, and territorial reserves set aside to protect isolated tribes.

As a result, loggers are now taking aim at other canopy giants few of us have ever heard of—*copaiba*, *ishpingo*, *shihuahuaco*, *capirona*—which are finding their way into our homes as bedroom sets, cabinets, flooring, and patio decks. These lesser known varieties have even fewer protections than the more charismatic, pricier ones, like mahogany, but they're often more crucial to forest ecosystems. As loggers move down the list from one species to the next, they're cutting more trees to make up for diminishing returns, threatening critical habitats in the process. Primates, birds, and amphibians

that make their homes in the upper stories of the forest are at increasing risk. Indigenous communities are in turmoil, divided between those favoring conservation and those looking for fast cash. And some of the world's most isolated tribes are in flight from the whine of chain saws and the terrifying crash of centuries-old leviathans hitting the ground.

Illicit practices are believed to account for three-fourths of the annual Peruvian timber harvest. Despite a crackdown on mahogany logging that began five years ago and a sharp decline in production, much of the timber reaching markets in the industrialized world is reported to be of illegal origin. Most of those exports have gone to the U.S. but are now increasingly bound for Asia.



A SHORT DISTANCE southeast of the Alto Tamaya, a 15,000-square-mile mosaic of protected areas known as the Purús Conservation Complex teems with gigantic trees that first sprouted from the jungle floor centuries ago. This region embraces the headwaters of the Purús and Yurúa Rivers, and tribes living in extreme isolation maintain a presence in its rugged upland folds. It is also believed to hold as much as 80 percent of Peru's remaining big-leaf mahogany.

Illegal loggers are using surrounding Indian settlements as a back door into the protected lands. Many communities have been tricked by men offering cash for help in obtaining logging permits, which they later use to launder mahogany illegally cut inside the reserves. Along the

An agent from Peru's park service hand-measures the width of a section of an illegally cut mahogany. A logger with a chain saw can topple a centuries-old tree like this behemoth in less than half an hour.

Huacapistea River, a Yurúa tributary that forms the northwestern border of the Murunahua Territorial Reserve, duplicitous dealings have left half a dozen Ashéninka communities impoverished and disillusioned.

At the height of the rainy season I join Chris Fagan, executive director of the U.S.-based Upper Amazon Conservancy, and Arsenio Calle, director of Alto Purús National Park, on a foray

“Welcome to the land without law,” Chota says, with a sweep of the arm. “The only law is the law of the gun.”

up the Huacapistea River. Boyish in his oversize khaki fatigues, Calle, 47, has jurisdiction over much of the Purús Complex. “Arsenio has done a remarkable job removing loggers from the park,” Fagan says. “But there is still strong demand for illegal mahogany.” Fagan’s organization created a Peruvian sister group called ProPurús to help the park service and indigenous federations protect the forests. One initiative involves organizing community “vigilance committees” to patrol around the edge of the national park and keep intruders out. ProPurús field director José Borgo Vásquez, a crafty 60-year-old veteran of conservation struggles throughout the Peruvian Amazon, is also aboard one of our motor-powered dugouts.

“The loggers are stealing from you and getting away with it,” Borgo tells a gathering at our first stop, the Ashéninka village of Dulce Gloria. “Why? Because you are doing nothing to stop them.” Borgo believes that conservation efforts will succeed only if local communities take an active role in the defense of their native lands. Two major obstacles, he says, are poverty and lack of education, which make the lure of cash so seductive and the need to protect the forest so difficult for many villagers to understand.

A third obstacle is distance, which gives timber poachers an overwhelming advantage. The Amazon rain forest is so vast and its far-flung river valleys so remote that it is impossible to patrol everywhere effectively. The absence of authority

Scott Wallace reported on Ecuador’s Yasuni National Park in January. Alex Webb photographed our August 2012 story about East London.

on the ground has given rise to a sense among loggers that the forest is theirs for the taking.

A local informant tells us that a logger named Rubén Campos is using an illegal track farther upriver to drag mahogany logs over the divide to an adjacent watershed. (Efforts to reach Campos for comment were unsuccessful.) Such a move would allow him to float any ill-gotten timber down to the Ucayali River and on to sawmills in Pucallpa, the regional capital, without the Ashéninka on the Huacapistea even knowing what he’s taking.

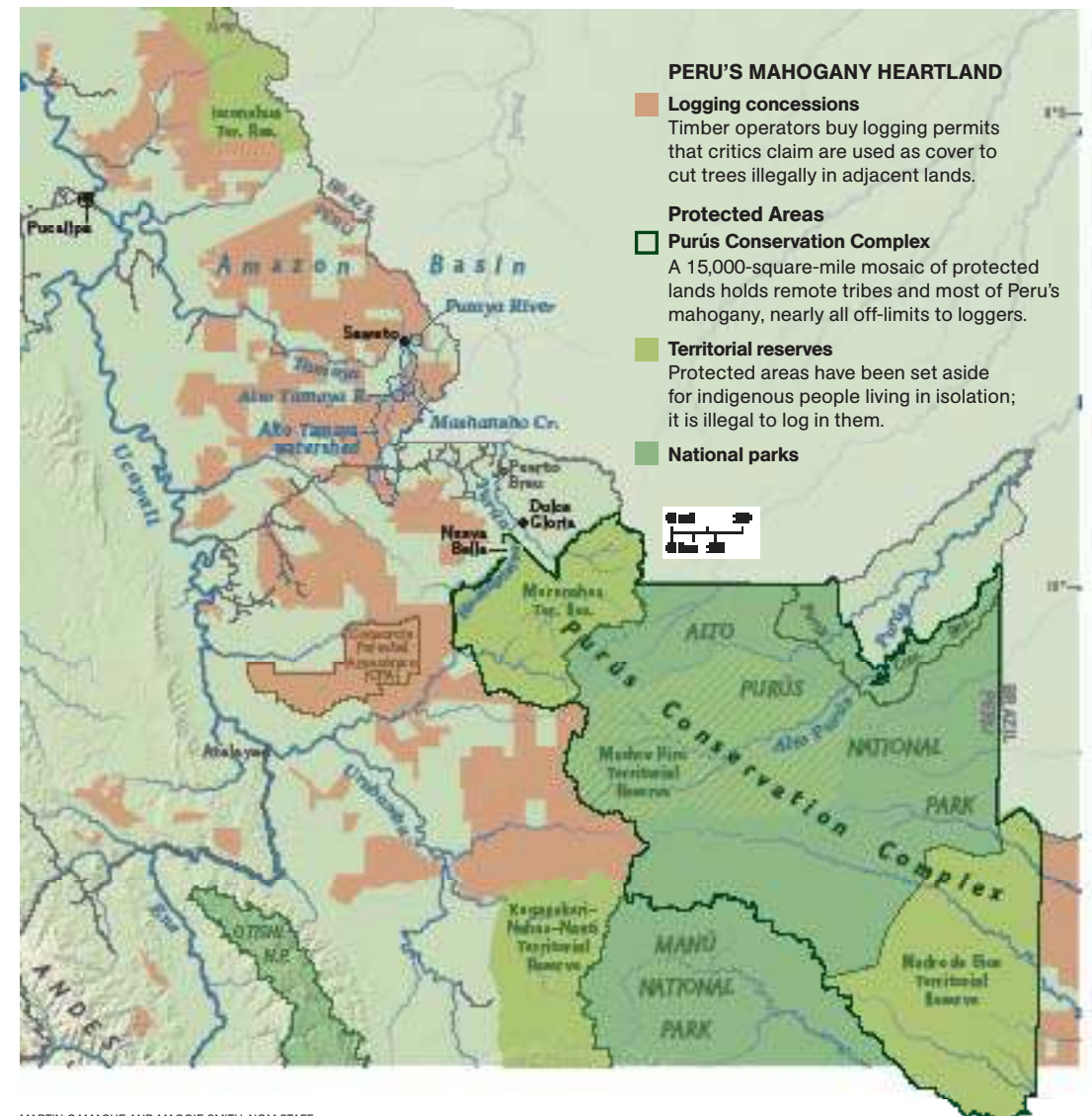
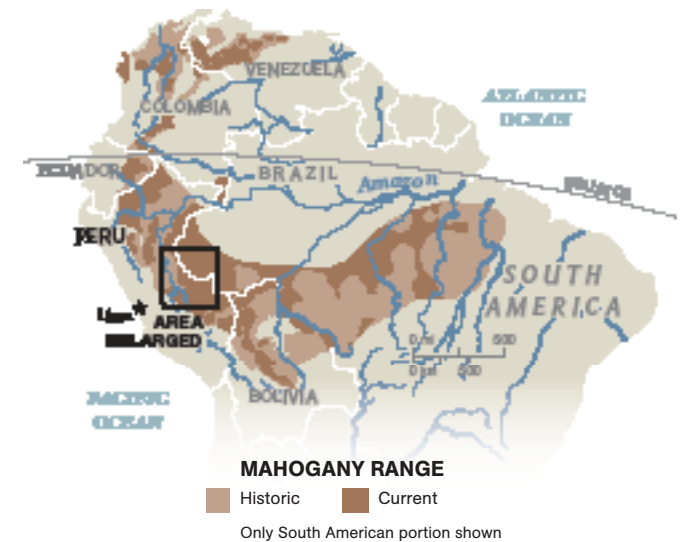
The next day, in a downpour, local guides lead us deep into the forest in search of the illicit operation. We pass a giant mahogany tree, an X etched in its bark, apparently slated for cutting. Anchored by sprawling buttress roots, the great trunk rockets into the canopy, where its branches drip with orchids and bromeliads. A gash in the forest leads into the rain-soaked jungle and vanishes in a blur of electric green. We soon find the culprit—a John Deere skidder with outsize tires parked in a shed made from rusted sheets of corrugated metal. We press on, passing a dozen massive mahogany and Spanish cedar trunks awaiting removal by the skidder. Calle measures their diameter—about five feet each. He says the trees are hundreds of years old.

We reach a clearing dominated by a shaggy thatched shelter. It’s guarded by a lone watchman, a specter of a man named Emilio, roused from his hammock by our approach. “A man needs to work,” he says defensively. “If there’s no other work, what can one do?” It’s a question that vexes Calle as well. This logging operation is clearly beyond the bounds of legality; no one is authorized to cut this forest. But the camp itself is beyond Calle’s legal reach.

Given the torrential downpour, it would be too difficult to follow the skidder path across the rain-swollen creek and into the reserve, so we turn back. Calle will alert authorities once he gets back to Pucallpa, but no one is likely to have the stomach for charging or prosecuting anyone. Without hard evidence from inside the reserve, it would be a tough case to pursue. Loggers are apt to be well connected to power brokers in Pucallpa. Honest

Red Gold Rush

Peru is one of the largest suppliers of big-leaf mahogany, among the world’s most vulnerable hardwoods. Requiring just the right combination of soil, moisture, and sunlight, the tree occurs from Mexico through Central America to the southern rim of the Amazon Basin. Logging has reduced mahogany to 30 percent of its historic range in South America.



MARTIN GAMACHE AND MAGGIE SMITH, NGM STAFF
 SOURCES: SPATIAL ANALYSIS LAB, UNIVERSITY OF RICHMOND; CHRIS FAGAN, UPPER AMAZON CONSERVANCY;
 JAMES GROGAN, INSTITUTO FLORESTA TROPICAL; INSTITUTO DEL BIEN COMÚN



Men off-load capirona—a dense wood used in construction—outside Pucallpa. Much of Peru's timber is cut without proper permits, then sold with forged documentation. The rain forest is slowly succumbing to operators large and small.



Ashéninka women and children gather in their remote settlement of Nueva Bella. Unscrupulous loggers target such communities, taking their timber at rock-bottom prices and stealing mahogany from nearby reserves that protect isolated tribes.

Timber mafias have already snatched mahogany for pennies on the dollar, if they paid anything for it at all.

cops often face smear campaigns, even outright dismissal, if they overstep boundaries. What's more, the government in Lima recently shifted forest enforcement responsibilities back to the regional governments, where officials are often more susceptible to arm-twisting. "The protected areas are going to be reduced to fragmented forest if we don't take a more proactive approach," says Calle, who fears loggers will now have even more latitude to undermine the rule of law.

THE BAD GUYS won't have any freedom at all in Edwin Chota Valera's territory, not if he can help it. Chota—a sinewy, 52-year-old firebrand with rakish, jet-black hair and a hawk's beak of a nose—is the leader of the Ashéninka village of Saweto, some 60 miles northwest of the Purús Conservation Complex. Since 1998, when local Ashéninka established Saweto, they have stood helplessly as, season after season, logging crews floated colossal trunks downriver from the headwaters of the Alto Tamaya and Putaya Rivers to sawmills in Pucallpa.

In the face of these trespasses, a decade ago villagers undertook a quest to get the regional government in Pucallpa to grant them legal title to their land—more than 250 square miles of river-laced forest stretching from Saweto all the way to the Brazilian frontier. Their claim was ensnared for years in red tape, while poachers pillaged their forests. It appears their petition may finally be resolved later this year.

The illegal logging epidemic prompted U.S. lawmakers in 2007 to require a series of reforms as a condition for approving a free-trade agreement with Peru. The agreement committed Peru,

among other things, to implement a plan of action on big-leaf mahogany that would comply with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Officials in Lima say they are experimenting with other measures, including an electronic monitoring system, that will help modernize Peru's timber industry. Changes have been slow to take effect and have brought little relief for many remote communities like Saweto, victims of timber mafias that have already snatched their mahogany for pennies on the dollar, if they paid anything for it at all.

But this is a new era for the Ashéninka of the Alto Tamaya. At a meeting in Saweto's one-room schoolhouse, a woman named Teresa López

Campos urges her people to stand up to the loggers. "Where are we going to go if they drive us away from here?" she says vehemently. "This is where we will die. We have nowhere else to go."

Two days later ten or so Ashéninka men and women have come together under Chota's direction to follow illegal loggers into the headwaters of the Alto Tamaya and demand their departure. Since dawn we've been following the twists and turns of the emerald green Mashansho Creek through dense jungle along Peru's eastern border with Brazil. Poling dugouts through sand-rippled shallows, pausing to spear catfish in crystalline eddies, my Ashéninka hosts are biding their time, confident that somewhere upstream we'll confront a band commanded by an elusive man they

A park service guard (at left) and an Ashéninka guide size up an old-growth mahogany, highly valuable to criminal loggers. Because individual trees can't be protected, this giant is almost certainly doomed.

call El Gato—the Cat. The expedition is fraught with risk, likely to incur the wrath not only of the loggers but also of their paymasters in Pucallpa—the sawmill owners and timber brokers, who are closely connected to the city's power elite.

The men of Saweto were away when El Gato motored upstream past the village a week earlier. Ignoring shouts from the women on the embankment to stay out of their forests upriver,



The Amazon rain forest is so vast and its valleys so remote that it is impossible to patrol effectively everywhere.

El Gato kept right on going, his three boats piled high with enough food and fuel to keep his sullen-faced crew cutting trees in the backwoods all summer long.

“As long as we don’t have title, the loggers don’t respect native ownership,” Chota says, standing at the rear of the canoe, propelling us with thrusts of a ten-foot pole. “They threaten us. They intimidate. They have the guns.” The target of frequent death threats, Chota has repeatedly been forced to seek sanctuary among the Ashéninka’s tribal relatives in Brazil, a two-day hike from here along ancient footpaths.

“Titling is a critical ingredient in the fight against illegal logging,” agrees David Salisbury, a University of Richmond geographer who’s sitting beside me. The lanky, fair-haired Salisbury has served as the villagers’ adviser since he first learned of their plight while doing doctoral research in 2004. “The native communities are the ones most invested in their place,” he says. “They’re the most capable of making long-term decisions about how to use their homeland and resources in a sustainable way.”

PERU’S LOGGING INDUSTRY operates within a framework of concessions and permits designed to allow a community, company, or individual to extract a sustainable yield from a given area. Transport permits are also issued to track the chain of custody of a shipment from stump to sawmill and on to the point of export or final sale. But permits are easily traded on the black market, enabling loggers to cut timber in one place and say it came from somewhere else.

The Alto Tamaya area offers a case in point.

The government’s nearest inspection station is several days downriver from Saweto, Chota tells me. So when it comes time for El Gato to float his logs out during next year’s rainy season, he can claim that any timber he illegally cut in Ashéninka territory was harvested on a legitimate concession nearby. “Welcome to the land without law,” Chota says, with a sweep of the arm. “From that inspection post all the way back here, there is no law. The only law is the law of the gun.”

As we pole our way up Mashansho Creek, it becomes clear that outsiders are not the only ones pillaging the forest. We disembark on a beach where the high-pitched whine of a motor reaches us from back in the woods. Minutes later we come upon five young men, shirtless and barefoot, in the midst of toppling a massive copaiba tree. They’re all Ashéninka, all relatives of our party’s eldest member, “Gaitán” (not his real name). Amid a blizzard of sawdust and flying debris, Gaitán’s son cuts deep into the trunk. Suddenly it cracks like a thunderbolt. Everyone dashes for cover, the saw still purring as the behemoth starts a free fall and lands with an earthshaking thump.

Pungent, pine-scented sap oozes from the fresh stump. The oil is renowned for its curative properties, and left standing, the tree could have fetched far more over the years for its medicinal oil than the onetime cash payout—probably less than a hundred dollars—that Gaitán’s family will get for its timber. But with El Gato’s crew on the loose in these woodlands, these men decided to lay claim to it first. Such are the distortions created by the absence of law; in this jungle free-for-all, it’s finders keepers.

Chota shakes his head in disgust at the sight of the copaiba stump. “Everyone who logs here is illegal, period,” he says. “No one has the proper permits.” Chota has been trying to wean the Ashéninka away from such destruction. But he must tread lightly or risk further dividing his people. Native communities can subsist on game, fish, and crops if their forests are intact. Still, they need things like clothes, soap, and medicine, and for many, logging—or taking handouts to let loggers in—is the only way to acquire those goods.

As the sun drops low, painting the treetops in splashes of yellow light, the team decides it’s time to leave the canoes behind and cut a straight line on foot through the jungle. The shortcut will put us upstream of El Gato. Trudging through dank forest as the last rays of sun fade from the sky, we ford the winding creek for a third time and look for a place to camp for the night.

BECAUSE PERMITS are commonly used to launder wood taken from adjacent lands, Peru’s concession system has been widely criticized for providing cover for illegal logging. But the forestry engineers and harvesters with a company called the Consorcio Forestal Amazónico (CFA) say they are trying to do things right. CFA operates a huge concession in the dense woodlands astride the Ucayali River in the heart of the Peruvian Amazon. The enterprise is the very model of rational exploitation, with fluorescent-vested saw operators guided to their targets by computerized maps and databases. Its 455,000 acres of primal forest have been divided into a grid of 30 parcels, each corresponding to a single year’s harvest in a 30-year rotation plan.

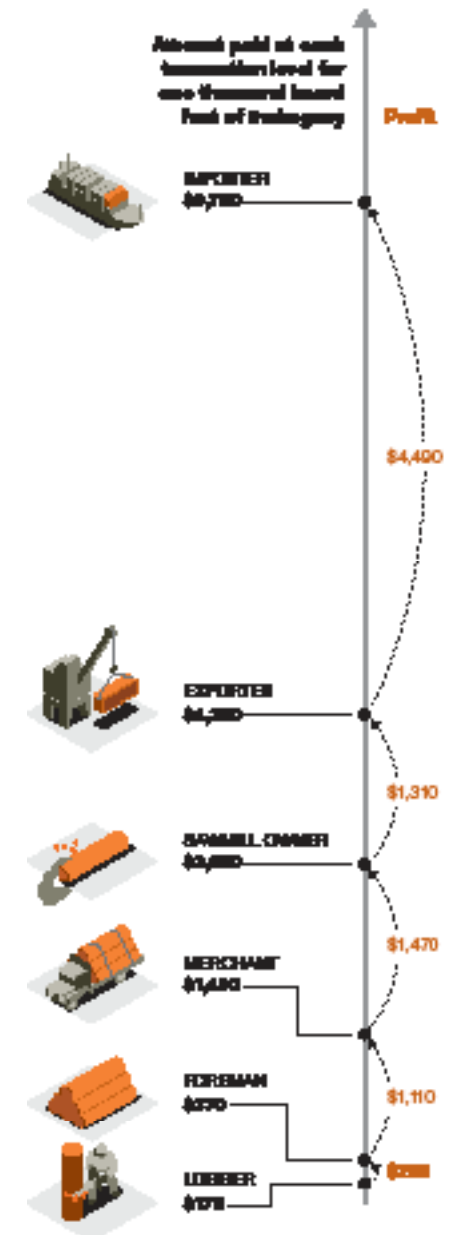
At a base deep inside the concession, supervisors consult with crews to plan the day’s work. “Delineators” crouch over drafting tables, updating computerized maps that crews will take into the forest. Every harvestable tree is color-coded by species and identified by number. Each two-man crew will cut approximately ten trees by sundown, working a line through the forest that matches a strip of the larger map. Seed-bearing adult trees, which will be left standing to regenerate the woodland, are also identified.

“We try to leave the forest cover as undisturbed as possible,” says Geoffrey Venegas, a Costa Rican forestry engineer who oversees the cutting. “We’re light-years ahead of what I’ve seen elsewhere.”

We clamber out of a pickup truck at an acre-size collection point fringed with piles of freshly cut logs, three to four feet in diameter, from trees with unfamiliar names: *chamisa*, *yacushapana*, and the aromatic *alcanfor moena*. There’s hardly any mahogany in CFA’s concession. For Venegas,

PROFIT AND LOSS

Over the past decade most of the mahogany officially exported from Peru went to the U.S. Profits from the timber trade benefit primarily the exporters and importers. Little money goes to the indigenous communities, whose lands and rights are often abused in the process.



As early morning mist hangs over the Alto Tamaya River, Ashéninka Indians from the community of Saweto prepare for a journey upstream to confront a band of illegal loggers. For years their forests have been plundered for choice timber. Now they've decided to act.





A kapok log dangles from a crane on the Ucayali River outside Pucallpa. Soaring giants draped with orchids, kapok trees provide rich habitat for primates, birds, amphibians, and insects. They're also in high demand for pulp and plywood.

the future of tropical hardwoods lies with these less glamorous trees. "We've identified 20 different species with commercial potential," he says. "This year we're cutting 12 of them."

CFA executives say that making use of multiple species increases the value of the forest, providing a greater incentive to take care of it, even if mahogany and Spanish cedar have already been logged out. "Socially responsible"

investors are impressed with the company's practices, its potential for long-term profits, and its certification from the Forest Stewardship Council, an international third-party auditing body that sets standards and recommendations for sustainable forestry.

But the impact of even these practices comes as a shock to a visitor to a forest that just weeks ago was an untouched wilderness. In the stillness of midmorning a screaming piha's cry resounds through the woods. An iridescent blue morpho butterfly the size of an outstretched hand flits past, like a kite jerking in the breeze. Monkeys play peekaboo from a stand of uncut trees. The dry season is already well along, but the forest floor remains spongy, exuding a damp vitality

resistant to drought—the hallmark of a healthy tropical rain forest.

What will this forest look like 30 years from now, though, when rutted roads and feeder trails extend into the far corners of the concession, and when men and machines return here to begin the cycle anew? Will the forest have regenerated? CFA is banking on it. "If we're able to do it, the whole Peruvian timber industry will benefit," sales manager Rick Kellso says. "You can get a nice profit by doing things right. You don't have to be illegal."

BACK IN THE UPPER REACHES of Mashansho Creek, beneath a sky blazing with stars, Edwin Chota Valera and David Salisbury gather the

What will this forest look like 30 years from now, when rutted roads extend into the far corners of the concession?

Ashéninka around the campfire to plot tomorrow's showdown with El Gato. "He's going to ask to see your papers," Salisbury says, referring to the title the Ashéninka still do not have. "But remember, he has no papers either. He's logging here illegally. He has no justification for being here."

We enter the logging camp at first light, swarming the squalid huts before anyone has time to reach for a rifle. A fair-haired man in a yellow soccer jersey rises to his feet. His green eyes betray bewilderment.

"Are you the man they call El Gato?" Chota asks.

"I am," the man says warily. Without putting up a fight, he agrees to leave but pleads with the Ashéninka for permission to take out the trees he's already cut upstream. "We're just working people trying to put food on the table." There's a ring of defeat in his voice. He says he's mired in debt to a man named Gutiérrez, who fronted \$50,000 cash for the logging expedition. "That guy will hound me until the day I die," he says.

Chota is unmoved. "Things could turn bad for you if you stay up here," he warns. The government in Lima, Chota tells him, has promised indigenous communities a greater voice in their own affairs. "Things are beginning to turn in our favor."

But within days of our encounter with El Gato, vandals steal into Saweto under cover of darkness and sabotage three outboard motors that were used by Chota's party, a devastating blow to the impoverished community. The Ashéninka have little doubt who did it. Prosecuting the crime will be another matter entirely. □

