



THE **35** BEST TRIPS IN THE WORLD

MEN'S JOURNAL

FEBRUARY 2019 Vol. 28, No. 2

INSIDE THE
AIR FORCE'S
**SECRET
SURVIVAL
SCHOOL**

JAMES MCAVOY

The Freakishly
Versatile Star of
the Hot New
Thriller **Glass**

**WINNING
SUPER
BOWL
SNACKS**

**SNEAKY
CORE
WORKOUTS**

The
Greatest
Party
on Ice

**+
KILLER
COCKTAILS
NO BOOZE
REQUIRED**



\$6.99US \$6.99CAN





OIL

CRISIS

PALM OIL IS AMONG THE WORLD'S HOTTEST COMMODITIES. IT'S ALSO DEVASTATING RAIN FORESTS, SPEEDING GLOBAL WARMING, AND SPURRING THE EXTINCTION OF ENDANGERED WILDLIFE. WE GO UNDERCOVER WITH A RAGTAG TEAM OF INDONESIAN INVESTIGATORS WORKING TO EXPOSE ONE OF THE MOST CORRUPT, AND DAMAGING, INDUSTRIES ON EARTH.

Recently cleared rain forest
on the island of Sumatra.

BY JOCELYN C. ZUCKERMAN PHOTOGRAPHS BY NANANG SUJANA

T

THE BUREAUCRAT SAT behind his desk, smoking. I'd been summoned to the sour-faced man's office, a ridiculously large, and largely unfurnished, room on the second floor of an administrative building in Jambi, on the Indonesian island of Sumatra, to explain my presence in his district. Accompanied by a few staff from the local chapter of WWF Indonesia, and with binoculars none too subtly hanging from my neck, I handed him photocopies of my passport and head shot and went over my lies in my head—*here to see hornbills and orangutans, here to see hornbills and orangutans*—while trying to maintain my composure.

Three weeks before my departure from New York, an article about a journalist dying in an Indonesian prison had turned up in my Twitter feed. In the months before his death, Muhammad Yusuf had written more than 20 stories about a controversial oil-palm plantation and the powerful tycoon behind it. The 42-year-old had been held for several weeks on charges of defaming the company, and though the official cause of Yusuf's death was a heart attack, his wife had been denied access to the body. Handwritten autopsy notes obtained by a local news outlet cited extensive bruising on the journalist's neck, shoulders, back, and thighs, and the national human rights commission vowed to investigate.

I'd planned my trip with the express purpose of writing about palm oil. Few Americans know it, but the cheap, versatile oil touches our lives in some manner nearly every day. It's present in some 50 percent of all products on U.S. grocery store shelves—from cookies, crackers, and ice cream to lotions and lipsticks; it also is on a precipitous rise in India, China, and beyond. Globally, production of palm oil has nearly doubled over the last decade, and there is no end in sight. As the old tagline of the palm oil-based dish detergent Palmolive put it: "You're soaking in it."

In the five decades since that ad's 1966 debut, palm oil imports to the United States increased from 29,000 metric tons to more



than 1.6 million, most recently thanks in part to the ban on trans fats. Semisolid at room temperature, palm oil has emerged as the ideal substitute for the partially hydrogenated oils formerly used to enhance the texture and extend the shelf life of products. In addition to its widespread presence in processed foods, cosmetics, and personal-care products, palm oil also is used in all sorts of industrial materials, and, increasingly, as a biofuel. "The takeoff that has occurred since 1970 in the production and export of palm oil...has no parallel in recent agricultural history," write the authors of 2017's *The Oil Crop Revolution*.

But the commodity's boom has come at a cost to the Sumatran environment and its people. The oil-palm plant, *Elaeis guineensis*, thrives at latitudes of 10 degrees to the north and south of the equator, a swath that corresponds with the planet's tropical rain for-

ests. Sumatra, in particular—the largest of the Indonesian archipelago's roughly 17,000 islands—has been devastated by the crop. Intact tropical forests aren't just rich centers of biodiversity; they rank among the world's most important carbon sinks, absorbing more carbon dioxide than they release. When palm-oil companies drain and then burn this terrain as a precursor to planting, massive quantities of CO₂ escape into the atmosphere. In fact, Indonesia's forest and peat loss have made the country the fourth-largest contributor to global warming after China, the United States, and India, according to a June 2018 report in the journal *Nature Communications*.

This is a sensitive topic in Indonesia, the world's largest producer of palm oil. While in Sumatra in 2015 to shoot his climate change documentary *Before the Flood*, Leonardo DiCaprio had tweeted that the Indonesian president should cancel a plan that would have exposed pristine rain forest to development by a palm-oil company. Government officials accused the actor of heading a "black

campaign" and threatened to run him out of the country. Two years before that, Harrison Ford had taped a confrontational interview with the country's environmental minister for the Showtime series *Years of Living Dangerously* and likewise had been threatened with expulsion. But this dead journalist suggested a new level of menace.

The companies involved in the production, trade, and utilization of palm oil—it's now a \$70 billion dollar industry—say they're committed to protecting the environment. In the past five years, many have published zero-deforestation policies and signed on to such pledges as the New York Declaration on Forests, an outgrowth of the 2014 United Nations Climate Summit. But thanks in part to an Indonesian watchdog group called Eyes on the Forest (EoF), we know many of these pledges are largely empty. Combining high-tech surveillance using drones and satellite imagery with on-the-ground reporting, EoF's small team of investigators documents how oil-palm fruit grown illegally in national parks and other protected areas makes its way to the mill, the refinery, the port, and ultimately to our own kitchens and bathrooms.

They'd agreed to show me how it's done.

"MAKE A RIGHT UP HERE," said Wawan, gesturing out the car window. Our driver, a nicotine-fueled kid in a backward-facing baseball cap and dark Vans sunglasses, eased the Toyota onto a rutted road, and we



Left: A plantation worker with just-harvested palm fruit. Above: Trucks transport the fruit for processing. Below: The city of Jambi, on Sumatra.



bumped along for a few miles before stopping alongside an electric-blue house set high on stilts. Driving out from Jambi—it had taken more than a day, but I'd eventually gotten clearance from the bureaucrat—I had watched as open-fronted shops and gold-domed mosques gave way to oil-palm trees extending in all directions.

Like coconut palms, the trees feature

draping, oversize fronds, but tucked under their leafy canopies are spiky brown bunches cradling hundreds of plum-size, bright-orange fruits, which get processed into palm oil. The guy I'm calling Wawan (all the names here are aliases), EoF's lead investigator, had led us to this spot to see one of the farmers whose operations he'd been monitoring. According to Wawan, the man had cut down forest in a protected area and was now cultivating oil palms in clear violation of the law.

Two men rose from the wooden bench on which they'd been sprawled and greeted us with handshakes and smiles. We pulled up plastic chairs and they reclaimed their seats, each reaching for one of the Indonesian body extensions that is the clove cigarette. (The country is one of the smoking capitals of the world, with 76 percent of males over the age of 10 regularly lighting up. This despite the nausea-inducing images of ravaged throats and lungs gracing every package.) Shifting effortlessly into the farmers' Malay dialect, Wawan, who speaks five languages, chatted with the pair about the weather and the ele-

PRODUCTION OF PALM OIL HAS DOUBLED OVER THE LAST DECADE. AS THE OLD TAGLINE OF PALM OIL-BASED DISH DETERGENT PALMOLIVE PUT IT: "YOU'RE SOAKING IN IT."

PREVIOUS SPREAD: NANANG SUKAM/RAIN. THIS PAGE: JOHN STAMMER/VEE1. FOLLOWING PAGE: JOCELYN C. ZUCKERMAN (2)

phants that had recently trampled through here, decimating the guys' young trees.

Such occurrences are increasingly common. Deprived of native habitat, the island's once-sheltered iconic animals—not just elephants but Sumatran tigers, rhinos, and orangutans—have begun encroaching on local communities. Annoyed by the beasts' habit of destroying crops, farmers and plantation workers respond by setting out poisons and traps. So embattled are the region's orangutans that rescuers armed with tranquilizer guns and nets have taken to patrolling in the hopes of spotting primates marooned amid the growing sea of palm. The disoriented primates get trucked off to forests capacious enough to accommodate them, while orphaned and wounded ones are relocated to a handful of overcrowded rehabilitation centers.

As we drove away an hour or so later, Buyung, an EoF staff member serving as my translator, explained that the men at the house believed Wawan to be a conservation expert working for the palm-oil company. He'll drop by from time to time, ostensibly to offer tips on maintaining the soil or dealing with pests, in order to keep up on the people cutting and planting in the area—and on the people behind them bankrolling the destruction. Wawan and another colleague, Wari, generally spend two or three weeks at a time on the road, often traveling by motorbike, posing variously as fishermen, bird-watchers, students, or land-scouting businessmen, depending on the situation. Instances like this one, in which they're hanging out with the very folks they are investigating, are not uncommon, and in extremely remote areas they may end up spending the night on such suspected criminals' floors. "If you go there openly," said Buyung of the deception, "they will bring you to the good thing. They'll say, 'Oh, we don't do that bad thing.'" (I use the word *translator* loosely here—Buyung's command of English was shaky at best, and I speak not a word of Bahasa.)

The EoF team are masters of improvisation. Wawan will routinely instruct the driver to pull over so that he can chat up some trucker idling by the road or loading oil-palm bunches onto his rig. At one point, positioned in the middle of an oil-palm plantation so as to monitor the dump truck-like vehicles known as lorries rumbling past, Wari had propped open our hood. Should anybody ask, we had broken down and were waiting for a friend to arrive with a spare part. Some years back, while eavesdropping in a rural restaurant, Wawan had heard people referencing the businessmen behind the local deforestation, recording their names in the squares of a prop crossword puzzle. Another time, he positioned himself near the entrance to a sawmill—before the scourge of palm oil, there was the wholesale heist of hardwood—and tracked the number of flatbeds clearing the gates by transferring matchsticks from one jacket pocket to another. The matchbox,

too, was a prop: The 48-year-old father of two does not smoke.

EYES ON THE FOREST investigators don't land in these strategic spots by accident. The week we were together, the team spent most mornings bent over their laptops, studying truck

routes and comparing satellite images captured over time. In addition to being badass spies, they are unapologetic tech nerds, conversant in the likes of GIS and eCognition and engaged in, among other international collaborations, a years-long mapping project with Google. (Established in 2004, EoF



Three undercover investigators from Eyes on the Forest. Bottom: The group uses drones to document illegal oil-palm operations.

IN 2007, ONE INVESTIGATOR WAS KIDNAPPED AND BEATEN BY AN ANGRY MOB WHEN HIS IDENTITY WAS REVEALED BY A FOREST SERVICE EMPLOYEE.



PREVIOUS PAGE FROM TOP: JOCELYN C. ZUCKERMAN; NEAL EVER OSBORNE. THIS PAGE: NEO

grew out of the forest crimes unit of the World Wildlife Fund and several local groups.) One of the investigators, a physics grad named Kokok, builds his own drones and travels with a 3-D printer for fabricating broken pieces on the fly. (I'd asked Buyung what was up with the bizarrely long pinky nails I'd noticed on so many Indonesian men, and he explained that one reason is they're useful for fixing things, from crashed drones to crapped-out motorbike engines.) The research both informs the investigations and adds a layer of evidence. "If somebody says, 'But I planted this oil palm seven years ago,'" Buyung explained, "we can look at the images and say, 'You lie.'"

The investigators have been repeatedly harassed and threatened, with one forced to relocate his family. In 2007, Wawan was kidnapped and beaten by an angry mob when his identity was revealed by a forest service employee. Wawan's two children broke down in tears when their father returned home covered in cuts and bruises. Only in the last year, after his son turned 18, did Wawan come clean with him about the true nature of his work.

Mostly the job involves sitting around in roadside joints and bumping over brain-rattling roads on the trail of illicit fruit. During the rainy season, factor in additional hours for maneuvering through foot-deep mud. Hotel rooms tend to be bare-bones (what not to expect: window, flush toilet, hot water, soap), with furnishings running to plastic flowers and polyester-blend bed linens. But there's local food along the way—tiny fried fish and noodle soup and deep-fried tempeh and fiery chili paste, plus mounds of fragrant rice—all eaten with the hand. And for those so inclined, there is the uniquely Southeast Asian delicacy that is the durian. "You maybe don't like," Buyung said, as the guys squatted in the dirt sucking the creamy white goo from the seeds of one of the odorous, bumpy-skinned fruits. I was thinking *bubble gum crossed with garlic* but prefer this description taken from a travel book: "Pig shit, turpentine and onions, gar-



Tigers, rhinos, and orangutans, like this female in Sumatra, are threatened by deforestation linked to palm-oil production.

nished with a gym sock." Next to the elevator in my Jambi hotel, a sign mounted on the wall features a durian nixed by an emphatic Ghostbusters slash.

IN THE VIDEO, a guy wearing jeans and a white tank emerges from the driver's side of an empty dump truck and slyly passes what appears to be a wad of bills to a hard-hatted guard before climbing back behind the wheel and driving off. Wawan had recorded the footage from a vehicle parked outside the

entrance of a palm-oil mill, where he'd arrived after trailing the truck, originally by motorbike, from a plantation set on protected land.

As proof of their sustainability bona fides, companies involved in producing and buying palm oil often assert that their supply is "traceable to the mill." The idea is that, given the perishability of the fruit, which begins to degrade within 48 hours of harvest, whatever arrives at a facility must have come from within a certain geographical radius. The mills vouch that the nearby plantations from which they source are involved in neither the destruction of primary rain forest nor the draining of carbon-rich peat land. (After initial processing at the mill, the oil is transported in tankers to refineries located along the coast for further treatment before being shipped off to the companies that will transform it into junk food and beauty products.)

But the model is ripe for abuse. As EoF

Guilt-Free Palm Oil

CAN SMALL GROWERS TRANSFORM AN INDUSTRY?

→ **MANY OIL-PALM** plantations bring with them a raft of ills:

Primary forests and peat lands are lost, soil health is depleted, agrochemicals pollute waterways, and plantation labor tends to be seasonal and low-skilled, denying landless locals a chance at upward mobility.

Natural Habitats, a nine-year-old company based in Rotterdam, is trying to turn that model on its head. Rather than working with large plantations, the outfit allies with small farmers in Ecuador and Sierra Leone, who grow oil palms on their own land. They intersperse the trees with crops like cacao and passion fruit.

mitigating the ecological downsides of a monoculture while providing fruits and vegetables for their own consumption. Plus, the palm is organic, grown and processed with no chemicals. The company pays a fair wage and subsidizes schools and health centers in the communities in which it operates. The oil, sold in the United States under the Nutiva label, is an ingredient in organic snacks and cookies and Dr. Bronner's soaps.

The mainstream industry,

meanwhile, is attempting to clean up its act—or at least make a good show of it. Last November, representatives from companies and NGOs convened in Malaysia for the 16th annual gathering of the Roundtable on Sustainable Palm Oil to address the environmental and social problems linked to the sector. Though the group has been criticized for lacking teeth, officials announced a tougher set of certification guidelines. How effective they'll prove is anybody's guess.

reports have documented, drivers carrying fruit from illegal plantations routinely race through the night to reach mills outside their expected range. Often they change license plates along the way. Wawan's video suggests what happens when they get there. "The cash is provided by the plantation owner," he told me. "It's part of the service. You give money to security to ensure that no questions are asked."

Growing oil-palm trees, it should be noted, isn't like growing basil. Significant cash is required up front to pay for clearing the land and things like fertilizers and pesticides, and the fruit isn't ready for harvest for at least three years. Cash-poor farmers are all but compelled to sign on with landowners, often absentee, who promise to bequeath them small parcels of land in exchange for years of working a larger plot. Often the laborers—including those two guys we'd talked to on the platform—have no idea that they are cultivating on illegal land. They are pawns in a much larger, much older game.

Over the course of his long tenure, from 1967 to 1998, Indonesia's infamous president, General Suharto, routinely handed out forest concessions to his family, friends, and fellow

"WE HAVE BEEN HERE FOR MANY, MANY GENERATIONS," THE CHIEF OF ONE CLAN SAID. "WE ARE NOT NEWCOMERS HERE. WE CAN NO LONGER PROVIDE FOR THE COMMUNITY."

military officers. The power to award logging and plantation licenses has since devolved to the district level, but the cronyism and corruption endure. (That dead journalist? He was investigating a company owned by the nephew of the district governor.) Today's forestry and oil-palm plantations invariably are linked to politicians and former military men, and the high-level connections to law enforcement mean they operate with near impunity. "It's time to confront the collusion between the palm-oil industry and politicians that is driving Indonesia's deforestation crisis," read the headline of a commentary published last April by Mongabay, a news site dedicated to all things forest. Its author, Tom Johnson, heads research at Earthsight, a U.K.-based nonprofit that recently conducted an extensive investigation into the dark money behind the industry.

In the 1980s, Suharto intensified a policy called transmigration, which involved the forced resettlement of millions of Indonesians from crowded islands such as Java to less-populated ones like Sumatra. These days, the arrivals to Jambi and Riau, in the center of the island, hail mostly from the north, where, thanks largely to the palm-oil industry, little land remains for families hoping to eke out a living. One afternoon, while driving across a remote landscape of oil palms and more oil palms, we watched as a giant bus, like something you'd see barreling toward Atlantic City on the New Jersey Turnpike, came flying around a corner kicking up dust. "Encroachers from North Sumatra," said Buyung, as though the presence of a crowded commercial vehicle here in the absolute middle of nowhere was a perfectly normal occurrence.

The onrush of settlers has been particularly devastating to a national park called Tesso Nilo and to nearby Bukit Tigapuluh, or Thirty Hills, an area in a neighboring province that comprises a national park surrounded by a former logging area; it's now partially protected as one of the last refuges for wildlife in central Sumatra. "From then until now is a big difference," said tech nerd Kokok of Tesso Nilo, where he once worked tracking elephants. "In 1998, there were some areas where I had to push my motorbike because it was too hilly and the trees were so big. Now it's all palm oil."

EoF has been working with the government and local NGOs to protect what remains of the park—75 percent of its forest has fallen to illegal plantations—and to rehabilitate some of what's been lost, in an effort to save the region's imperiled animals. "The elephants are being killed because of palm oil," a local named Junjung Daulay told me. Frustrated farmers have taken to setting out pineapples laced with potassium cyanide.

The industry also has displaced Sumatra's indigenous populations, including the nomadic Orang Rimba, or "people of the forest," whose numbers have dropped to just a few thousand. "We have been here for many, many generations," Hassan Basri, the 62-year-old chief of one clan, told me. "We are not newcomers." He and his extended family are scraping by in a clearing of sparse trees amid structures of sticks and plastic tarps. As recently as four years ago, they were hunting wild boar here. "Now the forest is gone," lamented Basri, a bony Giacometti come to life. "We can no longer provide for the community."

THE DRIVER OF the lime-green lorry crouched in the dirt, cigarette dangling from his lips. We'd been driving in Thirty Hills for more than an hour when we spotted his vehicle, piled high with illegal fruit, pulled over at the side of the road. Wawan hopped out and began to do his thing. Did the driver know how to get to Tebo? Was this the place to see the tigers? How had the harvest been and where would he take the fruit? Wait—his agent was a guy called Teddy? Wawan had an uncle named Teddy who lived nearby! Was the guy's Teddy married to so-and-so? Should Wawan have a look at the contract to confirm the odd coincidence? While Wawan gabbed, Wari snuck photos of the truck's license plate.

We drove back to the main drag and pulled into a roadside restaurant, where we ate lunch and settled in to wait: The driver would have to come this way in order to get to the mill. Wari stationed himself on a bench out front and kept his eyes trained on the road, determined not to lose our quarry amid the motorbikes and trucks zooming by. "Hey, Wari!" Wawan shouted at one point. "Don't fall asleep!" (It was an inside joke; the boss had done just that some years back, forcing him to abandon an investigation in which he'd already invested days.)



The site of a future oil-palm plantation.

When four hours passed and the green lorry still hadn't materialized, Wari went off in our other vehicle, a Mitsubishi, to find out what was up. Twenty minutes later, Wawan's phone buzzed. Wari had located the guy some miles down the road, where he'd pulled over to fix a flat. They grabbed their phones (and I my binoculars and copy of *Birds of Sumatra*), and we scrambled into the Toyota, ready to hit the gas as soon as that green lorry came into view.

Falling in a few vehicles behind Wari's Mitsubishi, we sped down the two-lane road, both of us pulling over when we realized the lorry had stopped in order to fuel up. Twisted around in the back seat, heart pounding, I watched as the guy emerged from the station only to turn back the other way. Had he lied to Wawan about where he was heading? Spied the Mitsubishi in his rearview? Maybe someone at the restaurant had overheard us and tipped him off? Wawan and Wari quickly changed vehicles, and our driver swerved back into the road. We blew past the green lorry, Wari aiming his camera from low over the dashboard, and hightailed it toward the area's only other mill. We were positioned just to the side of the entrance when the truck rolled through with its illicit haul. Our four days on the road hadn't been for naught.

Back at the office, Wari's photos, embed-

ded with GPS coordinates, would be combined with maps of legal and illegal oil-palm plantations, information on suppliers, and export data in a report that would get sent to the companies buying from the mill—including, ultimately, such everyday brands as Kellogg's and Mars, PepsiCo and Colgate-Palmolive. Law enforcement and the environmental and forestry ministries also would be briefed, in the hope that those masterminding the destruction might one day be brought to justice. It was rare, but in recent years, EoF had helped to land six officials in jail, including a former provincial governor, two district heads, and three forestry service executives. (Wawan said he regretted that smaller players can get caught up in investigations—including the helpful security guard who had lost his job thanks to a previous report and the friendly guys from the platform.)

Meanwhile, the palm-oil behemoth continues its propulsive growth, expanding to the archipelago's other islands. "The next threat is Papua," said Kokok. "I went there and—whoa. They're cutting." New oil-palm plantations also have been popping up in Latin America and Africa.

In the end, I did manage to see a hornbill, silhouetted against the evening sky in what was left of a recently burned-out forest. I'd also watched as a lone orangutan munched on fruit some 30 feet up in a tree. He'd found his way to the edge of a sanctuary established some years back so that primates wounded by farmers or on the verge of starvation could be rehabilitated and relocated in one of the island's few remaining forests. Even with the binoculars, it's getting harder by the day. ☹

Workers unload oil-palm bunches in preparation for processing.

