THE LAST FARMERS OF DAKAR

A growing city devours its source of sustenance

MADELEINE BAIR

THE CRIME BEGINS with a sly transfer of rocks. A pile of gravel is deposited on the side of the road, soon to be joined by a stack of cinder blocks. Side by side they sit for days, maybe weeks, until they fade into the scenery and no one wonders when or how they arrived. Then one day a wall arranged from those same blocks, or of cheap tin siding, rises up around them. Now the offense proceeds undetectably, at which point it is too late to stop it.

"This is a technique to grab land," says Ibrahima Diamé, the borough president of Patte d'Oie, a middle-class neighborhood on the eastern edge of Dakar. He stands on a sandy residential street above a ridge blanketed with trash and points to the material evidence before him. Though he's a politician and looks the part—a dark suit and blue silk tie over his commanding stature—Diamé approaches the scene like a forensic scientist. "They come, and they dump gravel and they dump gravel, and then one day you see they push it into the valley."

PHOTOGRAPH | MADELEINE BAIR

Over the years, Patte d'Oie's farmers began to notice that urbanization increased demand not only for their produce, but for their land.

Four decades ago, Dakar's farmers harvested over three hundred acres. Today, the neighborhood of Patte d'Oie is home to the city's remaining farmland, less than thirty acres.

Buildings sprout like wildflowers across Dakar, the capital of Senegal, left and right, short and tall, for miles outside the city. What makes them criminal in Patte d'Oie is not a matter of the structures themselves, but of what lies beneath them: the southern tip of the Niayes Valley.

Dakar occupies a sandy spit of land shaped like a triangle that juts into the Atlantic Ocean and is tethered to the continent by a three-mile-wide isthmus. Running through the peninsula's center, and then northeast for 110 miles up the coast, is the Niayes Valley, a lush ecosystem of lagoons and littoral depressions. Because of its rich soil and proximity to the capital city, this stretch of coastal land has become Dakar's main source of produce. Down a fifty-foot decline from where Diamé stands in Patte d'Oie is a verdant patchwork of lettuce, tomatoes, strawberries, and mint—but it represents the last arable remnant of the valley within city limits.

As the city has swelled in the past three decades with development spreading into the valley, business parks, golf courses, and houses have replaced the farms of the Niayes. Farmers have lobbied hard to protect their land, but by the time the president signed a law restricting construction within the valley in 2002, most of Dakar's farms had already been paved over. Since then, nearly 1 million more people have made Dakar their home, and the value of the land under Diamé's feet has skyrocketed. All of which means that Diamé has become an accidental expert in illegal land grabbing.

The politician's shiny black wingtips gather dirt as he walks a road in Patte d'Oie that serves as the legal barrier dividing permissible development from the *zone verte*. One side is lined with two- and three-story homes, adorned with satellite dishes and porcelain tiles. Across the street is the protected zone—a descent into fields of green. With each step, the borough president encounters another pile of gravel, a middle-class vacationer scouting for a building spot, or a new dwelling on the wrong side of the street, its concrete still damp and precariously clinging to the valley's escarpment.

The battle waged over this patch of land stretches far beyond local politics. The street under Diamé's feet cuts right through one of the greatest riddles of the century: how to feed a soaring and increasingly urban world population. To the left, a relentless tide of city residents; to the right, the fresh produce needed to nourish them. The furtive theft of land illustrates their incompatibility. In the dark of night, or behind the cover of a cement wall, the farms that feed Dakar are being consumed by the city itself.

Prior to European colonization, Lebou villagers in what is now Dakar lived off the fish in the ocean and the farms in the valley, which inspired fifteenth-century Portuguese explorers to name the peninsula "Cabo Verde," or Cape Green. French colonizers planted their flag in the southern tip of the triangle in the 1800s, and declared it the capital of French West Africa. During World War II, Vichy France ate potatoes grown on land where today one finds the city zoo. The war also employed Dakar's natural harbor, and the bustling colony spread its reach to the peninsula's northern point. Farmers living just north of down-

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ABOVE LEFT: A pile of gravel at a construction site in Patte d'Oie. **ABOVE RIGHT:** Patte d'Oie's borough president, Ibrahima Diamé, surveying the encroaching development.

town began transforming their subsistence crops into cash by feeding the growing city, and their produce, targeting the French appetite for leafy salads, gradually became an integral part of the local economy and cuisine.

Today, the fields of Patte d'Oie and a neighboring community produce as much as eleven tons of lettuce each day and put an estimated one thousand people to work. Alioune Faye, a sexagenarian with a soft, high voice, is one of them. Faye sowed his first seeds in Patte d'Oie forty-one years ago, when fields around him spanned more than three hundred acres. He had come to the capital from a farming town fifty miles northeast of Dakar to study electricity, and soon staked out a plot of land to till on weekends. As he invested his time, and later his income, in agriculture, he could forget that he was living in the capital and imagine himself back home in the fields with his family.

"You could find hyenas here, snakes, lizards," Faye recalls one afternoon, sitting under the shade of a soursop tree near his farm in Patte d'Oie. A golden tunic hangs loosely over his large frame. Despite the heat, a flannel scarf wraps around his neck, and an embroidered Muslim cap covers all but a bit of his short gray hair. Faye has a reputation as one of the most prosperous farmers of Patte d'Oie. "My success has no secret," he articulates slowly, in Wolof, the predominant indigenous language of Senegal. "I believe in work; all I do is work."

Without knowing it, Faye had come at the dawn of an urban population boom. The Senegalese refer to the year 1973 in grave tones. A drought hit the region, desiccating rivers, annihilating herds of livestock, and forcing families across the northern and eastern countryside to leave their fields for the capital. That year also marked the start of a lasting change in the country's climate. Though precipitation returned later in the decade, it vanished again for much of the 1980s. Farmers say the clouds still don't behave like they used to.

Compounding the natural setbacks and further motivating an exodus from the countryside were government policies across the continent favoring industrial development. During the 1980s and '90s, loans from the International Monetary Fund and World Bank imposed regulations that resulted in many African governments dismantling their agricultural sectors and accepting cheaper food from abroad. The policy left rural communities distressed and without alternate livelihoods, and today even some lenders admit it was wrongheaded.

With more and more mouths to feed in Dakar, growers like Alioune Faye were ready and eager to accommodate them. The farmers of Patte d'Oie were blessed with some of the best land in the country to harvest vegetables. Unlike their counterparts in the interior, they rarely needed to irrigate because of the valley's high water table, and could get their goods to large markets before they had a chance to spoil. But over the years, Patte d'Oie's farmers began to notice that urbanization increased demand not only for their produce, but for their land.

Dakar's massive expansion is evident in each corner of the city and in every breath of air, in which construction dust mingles with sand kicked up by the West African trade winds. The construction is in response to the monumental number of new

residents — approximately 100,000 every year.

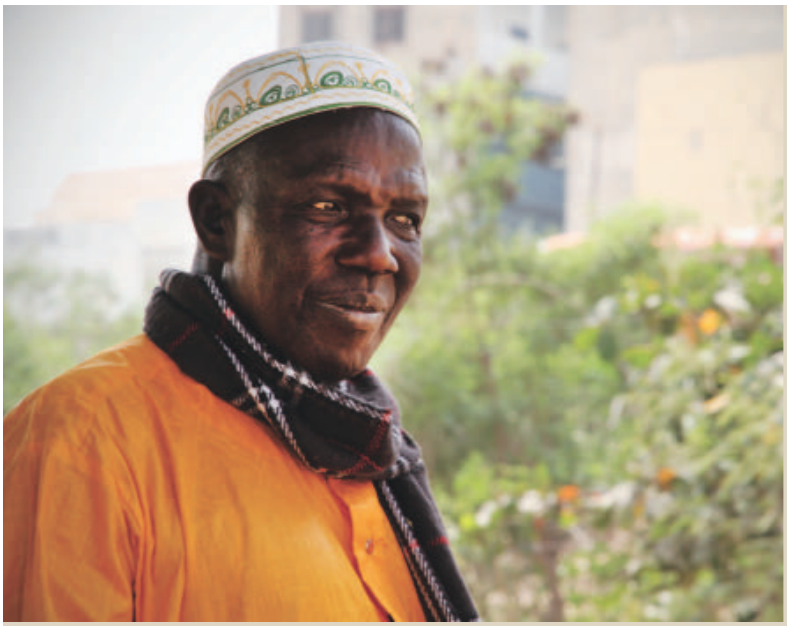
This frenzied migration to the city is not unique to Senegal. In fact, with 3 million residents, Dakar appears quaint when compared with other African metropolises like Kinshasa and Lagos, whose populations top 9 million. This urbanization across Africa led to a major milestone noted by demographers in 2008: half the world's population now lives in cities. Africa, which was only one-quarter urban in 1975, is expected to reach that landmark itself by 2030; Senegal already has.

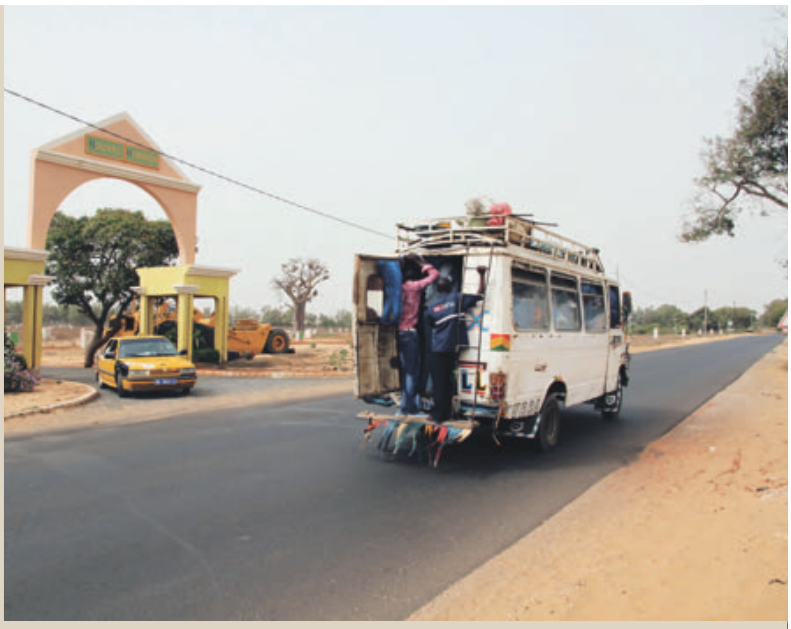
A drive down the new highway, through the center of the peninsula and east toward the suburbs, illustrates the urbanization process. From the center of Dakar, one looks out the window at a horde of buses, jalopies, and young peanut vendors weaving through traffic on foot. On the side of the road, concrete mixers and crews in hard hats erect buildings of all shapes and sizes. Dust is everywhere. Road detours are, too. When the highway tapers to two lanes twenty-five miles outside the capital, construction continues in a way familiar to any American who has commuted to an unfinished suburb. Developers' offices along the pockmarked road advertise three-bedroom homes for sale, while other buildings simply announce land for sale on signs taped to their bare facades. Baobab trees, small farms, and tawny stretches of dry bush fill the space in between. By the time farms outnumber fresh concrete, it's three hours from downtown and halfway to the next city.

Some look at Dakar and see a shining example of African development. Indeed, many outsiders consider Senegal a symbol of good governance in a struggling region. The country regularly plays host to international conferences and is a darling beneficiary of eager lenders. But Dakar's rapid expansion also has plenty of critics. They see the new World Bank–funded highway and ask why those resources were not instead invested with rural farmers, most of whom lack simple irrigation. If politicians paid more attention to the needs of the small towns and rural farmers, critics argue, poor families would not be migrating in droves from the interior to a city that barely has room for them.

"You get the impression that Dakar has no urban plan," says Papa Sakho, a local geographer. In fact, an urban plan for the capital *has* been in place for nearly a century, he explains. It's a blueprint for how the city should expand and develop, where sewer lines should run and transit routes extend. But reality continually outpaces its parameters. When a city grows as quickly as Dakar, slapdash development is inevitable, he says. "Everything turns into the city. Everything turns into housing. Everything turns into

BELOW LEFT: Alioune Faye has farmed in Patte d'Oie for more than forty years. **BELOW RIGHT:** Housing developments along Dakar's new highway are transforming the rural landscape into a long stretch of suburbs.





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industrial production. There is no more space for the rural."

There are other agricultural areas in the country, but each faces its own challenges. Grains and nuts grow in the interior, when the rains come on time, and farmers in the southern Casamance region, blessed with more precipitation, grow rice. But that area is divided from Dakar by both a river and the small country of Gambia, and bouts of violence from a separatist movement can make transportation difficult.

Like California's Central Valley, the Niayes Valley is an incredibly productive stretch of agricultural land and provides Senegal with 80 percent of its fruits and vegetables. In spite of Dakar's rapid growth, much of the produce eaten there is still grown in and around the city, on farmland like that in Patte d'Oie. If it disappears, the added transportation costs to import vegetables from the interior or abroad could price them out of many Senegalese budgets.

The spike in world commodity prices in 2008 had families and policymakers worldwide fretting about this possibility. A 60 percent jump in food prices reverberated in the form of riots and political unrest in two dozen countries, including Senegal, and offered a daunting image of what could happen if cities like Dakar found themselves increasingly reliant on imports. Dakar's residents were again given a taste of such a crisis during the rainy season of 2009, which flooded much of the Niayes Valley. Staples like parsley trucked in from fifty miles outside the capital sold at the market for five times their usual price. Only the rich could afford vegetables.

Of course, Dakar is not the only city where neighboring farmland is being paved over. When the geographer Papa Sakho summarizes Senegal's urbanization, he could just as well be describing West Bengal, Long Island, or California, where more than fifty thousand acres of farmland give way to urban growth each year. Despite a growing consciousness of the importance of locally grown food, without a radical change in the way agricultural land and practices are valued, urban farms, because they occupy premium real estate, will remain under threat.

It's not easy to find Alioune Faye's farm among the urban detritus that surrounds it; one could easily mistake the way there for a route to the dump. Mountains of garbage line the one-lane dirt road extending from the freeway. Down the long path, through the trees, and past vendors hawking car parts beside a rest stop for taxis, a clearing opens, revealing a stunning emerald patchwork of farmland. Men young and old pace

Rooftop gardening is seen as one way to nourish a growing city as farmland dwindles. This one feeds a family of eleven, with leftovers to sell at market.

The farms of Patte d'Oie produce strawberries, tomatoes, mint, and 560 tons of lettuce each year.

between natural wells and rows of lettuce, a watering can under each arm. *Bana bana*, or market women, wrapped in vibrantly printed fabrics, pile vegetables into plastic bins and balance them on their heads as they walk through the square parcels. A horse plods down the path, pulling a wooden cart carrying a vendor and his day's worth of sales. A few turns and several strawberry patches later, you arrive at Faye's farm.

As he stands over a freshly planted bed of lettuce, Faye squints in the direction of the car traffic across the valley. It is just after lunch, and a mix of smog, sand, and construction dust blunts the harsh midday sun to create a sky as white as marble. Five years ago, Faye explains, the state built a major highway to connect Dakar's suburbs, running right through a few dozen Patte d'Oie farms, including two small fields of raspberry, coconut, and citrus trees he once owned.

For those farmers who remain, the thoroughfare cutting through their fields has caused significant disruption. Paths that once demarcated farming plots have turned into shortcuts for wily city drivers. For the bana bana, getting from one field to another often requires either a taxi ride across the highway or the popular alternative—a harrowing jaywalk across ten lanes of traffic.

Faye nods his head in the opposite direction, toward what looks like a swamp of tall grass. During last year's rains, flooded neighborhoods pumped excess water into the valley, which rendered many farms useless. "This is how the Niayes is shrinking bit by bit," he says.

In the span of Faye's four decades of harvests, the farmland of Patte d'Oie has nearly disappeared before his eyes under layers of poured concrete. When he arrived, the fields of Patte d'Oie spanned 336 acres. At last count in 2011, they measured less than one-tenth that, or about the size of twelve city blocks. The new highway, leading straight into downtown, has made Patte d'Oie even more appealing as a residential neighborhood, and the pace of construction, now illicit, has only quickened.

The two and a half acres that remain in Faye's hands skirt the western edge of the valley, at the foot of a cliff that leads up to Patte d'Oie's newest middle-class homes. Enforcement of the law intended to keep the area green has proven as reliable as the summer rains. "The government," Faye says, "has failed to play its role in making sure that the barriers erected around this valley were not trespassed by land-grabbers." Fields all around him have been taken over by cinder-block construction. Now his own plot of vegetables straddles the precarious border between housing and farmland.

Urban agriculture has attracted great fanfare from development agencies. After all, the question that concerns demographers is not how many people will live in the metros of tomorrow—it's how these people will be fed. But farmland's

PHOTOGRAPH | MATT DURNING

competition with housing, and the highways and infrastructure that come with it, puts it under constant threat. As Dakar's population has ballooned, so too have its rents—apartment units in certain neighborhoods can rival Manhattan's prices. With land values so high, agriculture could never match housing development for financial returns.

This does not mean that urban agriculture is forever doomed. It can succeed if and when there exists a willingness and ability to protect it, says Mark Redwood, author of *Agriculture in Urban Planning*. He points to the city of Montreal, which has supported a network of community gardens since the spike in food prices during the 1970s energy crisis, and to Rosario, Argentina, where community farms sprouted up during the 2001 economic collapse and have since become an integrated part of the local landscape and economy.

Such examples, however, represent exceptions rather than the norm. In wealthy countries, urban agriculture faces an uphill battle against private interests and public priorities. In South Central Los Angeles, for example, sheriffs evicted farmers from a fourteen-acre farm in 2006 when the property owner asserted his right to develop the land. More recently, the city of Berlin voted to sell off many of its pioneering community gardens to help balance the municipal budget. In developing countries, where municipal governments are generally weak and dysfunctional, says Redwood, "the path will be more bleak."

The food crisis of 2008 sounded an alarm for governments to take urban food security more seriously, and it seems they are listening. Recently, the mayor of Dakar paid the Food and Agriculture Organization (FAO) of the United Nations a visit to learn about restoring the city's environment. "If food prices continue to go up," Redwood says, "we will find policy interest in urban agriculture going up as well." But interest is not the same as implementation, he cautions. "I see urban plans with all sorts of wonderful words, but what will happen over the next twenty years? The reality is very different."

In Patte d'Oie, it takes no great stretch of the imagination to visualize what the future holds. Whether Dakar's last remaining farmland has one year left or twenty, the workers of the land know their days are numbered. Resting on a blanket in a field among ripe heads of lettuce, Alioune Faye turns prayer beads through his leathered hands and contemplates his lot. Faye says he wants the government to appreciate that he makes his living from these fields, but he is also resigned to the fact that the momentum behind urbanization is likely unstoppable. He knows that if settlers keep coming, the state or private developers will eventually seize his land. Says Faye, "I know there is nothing we can do."

Pilgrim, memory and sea are boundless

In a tenth-floor suite,
with my slicked hair and beard
and blazer cut right,
not even my third glass of gin
can stall the folded knit
that recalls camp.

And rolling free from bag
and tent into the chilly dawn
recalls the green shade
of a banker's lamp,
the books that looked back,
and bleary eyes wanting sleep.

Fuzzy from gin
and the memories now
spreading wide in squares and decks,
I step out
into the moist evening air,
the moon limning
anniversary, injury, laughter, degree—

It is distance, then
that makes this life ambitious—

And it will be the moon
I think
that recalls you
when I've trekked the cold steppes,
dined with a countess, and
after many years
landed back in some patch of grasses:

then the small inlet of blood
that wells within these borders
and this grown beard

will be pulled shoreward
like a proper tide,

and flashes dot the night.

— Joseph Spece