

# **The Informal City Reader**

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Introduction	4
Accra, Ghana	6
Bangkok, Thailand	60
Chennai, India	108
Lima, Peru	152
Manila, Philippines	192
Nairobi, Kenya	232
Scenario Summaries	278
Commentary	292
Credits	318

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# Introduction

Let’s not romanticize poverty. We live in an unprecedented age of urbanization that has consigned large segments of the population to slums that have no water or electricity or sanitation. Life in these places is hard. Health is precarious, children are at risk and violence is a daily event. Gangs rule many of these neighborhoods, with the authorities and the police entering only when armed to the teeth.

These slums are a stark reminder to many cities that, despite their booming economies, economic and social inequality seems endemic and intractable. It’s no wonder, then, that many cities want to wish away these places, move their populations back to the countryside in a vain attempt to quickly clear away the poverty and move forward toward a more appealing future. A plan for such a future exists in every mayor’s office in every city with rising ambitions—a vision that looks 10, 20, even 30 years on. And in every city that vision contains the same basic elements: Shiny buildings and broad, sweeping avenues. Big green parks and smoothly flowing traffic. Waterfront high-rises. Glittering malls.

Uniformly absent from these plans are the districts where the poor now live, the informal markets, the *tianguis* and the *souks* where vendors congregate to sell their wares to the public. High-end shops and gleaming corporate towers have replaced wet markets and slums; subways and light rail and elevated highways have overtaken matatus and trotros.

These visions of a well-scrubbed future are seductive. But they are also exclusionary and

unrealistic. They imagine that the current disorder will be swept away, forgetting that while the top of the pyramid may be gilded, the bottom bears its weight.

What these visions overlook is that, despite their disorder, slums are also places of entrepreneurship and human energy—neighborhoods that, with proper support, could one day become the vision. Walk into any slum and look past the open sewers and corrugated-iron shacks. Look instead to the stores and tool houses. There are restaurants, repair shops, barbers, tailors, hairdressers, schools and hotels. Often there are massive markets, where residents from the city’s more “respectable” districts come to haggle with the vendors in their stalls. This is capital, human and economic, actively pursuing opportunity. The slums and the wet markets host a population that is trying to lift itself out of poverty. In doing so, they lift the city as well.

This is the side of the city that The Rockefeller Foundation’s Informal City Dialogues set out to explore. In cities of the Global South, the informal economy

accounts for up to 40 percent of GDP.

Informal settlements are home to as much as 25 percent of the urban population, and informal transport provides mobility for upwards of 60 percent of the populace. The OECD estimates that half the workers in the world—close to 1.8 billion people—hail from the informal sector, making and selling and trading off the books. To paraphrase the late C.K. Prahalad, *the informal city is the bottom of the pyramid that holds up the formal city*. The Foundation believes that the informal city will play an essential role in transforming our cities into engines of opportunity and social and economic mobility.

By participating in the Dialogues, the six cities involved—Accra, Bangkok, Chennai, Lima, Nairobi and Metro Manila—took steps toward acknowledging this. In each of these cities, various stakeholders—from street vendors and slum dwellers to urban planners and government officials—came together to try to imagine what their cities might look like in the year 2040. They then used these visions of possible futures to devise innovations that would make their cities more inclusive and resilient in the decades to come. But the process, facilitated by Forum for the Future and documented by Next City, wasn’t just about generating an end product. It was about a form of collaboration in which everyone has a seat at the table.

We hope that the Dialogues are just the start of a larger conversation about how cities are not only the engines of the global economy, but accelerators of opportunity. Leveraging

the informal city will mean finding ways to support the informal street vendor so her table of wares on the sidewalk can become a stall in the market, which can then grow into a network of stores. It will mean understanding that the roadside vulcanizing operation is the stepping stone to the auto repair shop, and that pulling a pedicab could be the prelude to owning a small fleet of vans. It will mean seeing the shack in the slum not as simply sub-standard housing, but as a means of production and an asset for investment to someone who owns little else. It will mean recognizing that the poor are attracted to cities because of opportunity, and that the city is the most efficient way to provide that opportunity that the world has today. It will mean embracing the informal city, and all it has to offer.

Benjamin De La Pena  
The Rockefeller Foundation

# Accra, Ghana





As the capital of a country where 43 percent of the urban population lives in slums and 90 percent of non-agricultural employment is informal, Accra epitomizes the informal city. From public transport to domestic labor to fresh produce, the vast majority of goods and services in this city of 2.3 million are procured informally.











PLAY VIDEO





**Informal markets are often the target of eviction efforts and government crackdowns, but their traders prove remarkably resilient.**





**Amid crushing congestion, motorcycle taxis and informal traffic cops—who work for tips—help keep things moving.**









**Accra is one of the world's leading destinations for electronic waste, where cell phones and old TVs are processed in slums like Agogbloshie.**







**An unreliable municipal water supply means many people are forced to search for—and purchase—water informally.**



# How a Savings Bank Became One Slum’s Line in the Sand

Sharon Benzoni

Salifu leads the chant:  
“Information!”

“Power!” the group responds, about 40 men and women seated in plastic chairs under a canopy to shade them from the searing late-morning sunlight. A few cement buildings between the rows of shacks are adorned with drying clothes, and a small minaret from the local mosque is just visible behind a row of tiny wooden houses.

“Information!” Salifu calls again.

“Power!” they respond.

“Information!”

“Power!”

“Busy!”

“For something!”

“Busy!”

“For something!”

“Busy busy!”

“For something something!”

“Busy busy busy busy!”

“For something something something something!”

Welcome to Old Fadama, a slum with influence. This is the weekly meeting of one of its informal credit and savings associations. The call-and-response is part of their weekly ritual, to be followed by the collection of savings from its members. Salifu Abdul-Mujeed, an exuberant social worker from the [Ghana Federation for the Urban Poor](#), speaks to the assembled group in Dagbani, occasionally mixing in some Twi. He then translates into English, which another man translates into French for a delegation of visitors from Burkina Faso.

The credit association is a small but important organizational facet of the sprawling 77-acre slum known variously as Agogbloshie, Old Fadama and “Sodom and Gomorrah.” The settlement had an estimated 79,000 residents as of 2009, and a population density roughly ten times that of Manhattan. Though Old Fadama has existed since the early 1980s, the livelihoods of its residents are

always under threat. Fires and floods regularly ravage the wooden houses and poorly drained land. As if these environmental threats weren’t enough, the land itself is government-owned, and the city faces constant public pressure to destroy the settlement, thanks to its stigma as a hotbed of prostitution and crime, from which it earned its biblical nickname. Furthermore, it is situated on land set aside for an ecological preserve designed to restore and protect the polluted Korle Lagoon. Several times, the government has threatened eviction, but so far Old Fadama has managed to resist.

The savings and credit association is part of that resistance. It has been around for a decade, and members are expected to save at least 2 cedis (\$1 USD) each week. Mohammed Alhassan is the collector, taking this money from each member and noting down their contributions in the collection books. He’s been part of the association for four years. Orphaned the age of fifteen, he had completed junior high school but was unable to afford the fees that would have allowed him to attend senior high school. So he moved to Accra to try to make a living. He now has five children and a wife, who is a tailor and also a member of the association.

“Where is Naa?” Salifu asks. A



woman in red lace points over her shoulder, vaguely north. “Kumasi,” she says, indicating that Naa is in Ghana’s northern region today. On any given week, a fair number of the association’s members will not attend the meeting; many are traders who make long journeys to buy stock to sell in the city. The particulars of Old Fadama’s economy reflect, in part, the fact that most of its residents are Northerners. Mohammed travels to the northern city of Tamale to buy movies and songs produced there. They are made in the Northern languages — Dagbani is the most common — and are of more cultural

Savings from the association in Old Fadama have allowed residents to upgrade their homes from wood to concrete.



relevance to Old Fadama’s residents than entertainment produced here in Accra. Similarly, 50-year-old Aisha produces traditional herbal medicines from plants harvested from the wild in the North. Her remedies, she says, can alleviate fever, stomach pain or back pain, among many other ailments. She uses the profits from her sales to pay her children’s school fees.

Members in good standing can take out loans of 40–800 Ghana cedis (\$20–400 USD), and many take advantage of this, using the money to build homes out of cement blocks instead of wood, creating housing that’s protected from the fires that frequently sweep through the settlement. Others, like Alhassan, use them to buy stock for their businesses, increasing the range of products they can sell.

Informal credit systems abound in Accra, a reflection, perhaps,

young men to start in the business is to use the “work-and-pay” system: Essentially, a patron who has some money, usually a friend or relative, buys a motorcycle for you to use for your business. Every week, you give some portion of your earnings to your patron, or “master,” as Prince One referred to his. A taxi driver had a similar story — every week he deposits 200 cedis (about \$100 USD) into the bank account of the man who bought him the taxi. In eighteen months, he’ll own the car, after having paid back its cost with interest of about 18 percent.

The difference between this group in Old Fadama and the small-scale informal personal loans so commonplace in Accra is that this credit association has also become a center of community organization. In 2002, community leaders invited a group from Slum Dwellers International to visit Old

Several times, the government has threatened eviction, but so far Old Fadama has managed to resist.

of a particularly African style of relationship, or simply the continued challenges people across social strata have in accessing capital. Prince One, the okada driver I wrote about last week, explained to me that one way for

Fadama, and the following year the first savings group was born. These savings groups were conceived from the beginning not just as money banks, but as centers around which the community could organize itself to ensure survival.

Salifu says that the Ghana Federation for the Urban Poor, which is the local partner of Slum Dwellers International, works with the groups not only on financial services, helping to ensure good accounting and payment practices, but also gives them a platform to leverage the resources of international organizations like United Nations Habitat and the World Bank. In partnership with SDI, they have undertaken a number of profiling surveys to compile real information about Old Fadama’s inhabitants — and to gain public sympathy in their battle with officials over forced evictions. The information gleaned from the surveys — including population data and information about its businesses and economy, began to transform the public image of Old Fadama, as Barbara Torresi put it, “from that of a biblical hotbed of crime into a flagship example of grassroots power.”

Now, groups like the delegation from Burkina Faso come to



Old Fadama to learn how its organizations are run. Ashaiman, a huge informal community just outside the nearby port town of Tema, is undertaking similar initiatives. And the slum is slowly upgrading, as evidenced by the new cement buildings erected thanks to the loans, and the gleaming new toilet facility around the corner. Though they still face threats of eviction, the group isn’t afraid to take on politicians: another of the association’s rituals is an enthusiastic reinterpretation of a classic Ananse fable, which tells that “whoever intends to destroy this association should be caught by the shingles so they cannot even walk,” as

Mohammed Alhassan, the association’s money collector.

Salifu explains it to me. In both bodies and balance sheets, it turns out, there is strength in numbers.







# A Daily Quest for Water in a City Running Dry

Sharon Benzoni

Five Kufuor Gallons are stacked against the wall when I enter Auntie Mariam’s compound early one recent morning. The sun is barely up, but the courtyard is already buzzing with activity as her 19 family members prepare for their day. “Nineteen is the official count,” she says, “but I think there may be more.” She nods at several of her daughters, gathered nearby. “These girls will be going with you.” One of them looks at me and grins. “You can carry this one because it matches your color,” she says, pointing to the one white one among the lot of yellow plastic jerrycans. So I pick up my Gallon and off we go.

Mariam (confusingly, one of Auntie Mariam’s daughters) leads the way through the winding, narrow alleyways that make up Nima, a sprawling informal settlement in northern Accra. We are on a mission to find water, a mission these girls wake up to every day. I start my voice recorder, which will also serve to keep track of the time this mission takes. Someone

yells out to Mariam. She laughs and tells me that they have joked that things must really be bad if a white woman is out fetching water.

“The Gallon is the white bread of Accra!” Salifu, my friend from the People’s Dialogue on Human Settlements laughed when I told him I was writing a story about the Kufuor Gallon, or just “the Gallon” for short. The Gallon is the yellow plastic jerrycan that begins its (usually long) life as a container for cooking oil before entering the informal economy as a container for water. It’s one of those ubiquitous things — like the loaves of white bread for sale by the roadside — so common it blends into the landscape, becoming invisible. But unlike many common objects, this one has a history and political meaning attached to it.

When you start looking for the Gallon, you see it everywhere, a constant reminder of the tenuous state of Ghanaians’ access to basic needs. There are stacks of them against the outer walls of houses. Taxis and trucks with yellow gallons peeking out the back. As I came out onto the street the other day, two men with wheelbarrows were standing in front of my neighbor Abu’s house, carting two Gallons each. On my morning run, a girl carrying a Gallon in her hand told me that she would walk another

half-kilometer to fetch water. The containers (which hold, despite their name, ten liters, or a little more than two-and-a-half gallons) were dubbed the “Kufuor Gallon” because of the water crises that marked the tenure of John Kufuor, Ghana’s president from 2001 to 2009, a crisis that continues to plague Accra.

People need the Gallon everywhere in Accra because government water provision, like that of electricity, is variable and unpredictable. The water can flow from taps for weeks at a time and then suddenly shut off. One solution, for those who can afford it, is to buy a Polytank, a large

black plastic water storage cylinder. Mounted on a rooftop or its own concrete stand, a gravity-powered Polytank can provide flowing water. On the ground, usually on a concrete slab, it can be used to fill buckets and Gallons. But getting the water into the

Polytank can be complicated: You can buy a pump to fill the tank when the water is flowing, but if it’s out for a long period of time, you may have to call a private water company to fill it. If you don’t have your own Polytank, you may have to buy or borrow water from a neighbor who does.

What it boils down to (no pun intended) is that everyone, whatever their class, has to patch together different ways to access water. In my own apartment, three Gallons sit beside my bathroom, and for a few days this week, I took bucket baths and flushed the toilet with water my landlord carted over in the back of his truck from God-

When you start looking for the Gallon in Accra, you suddenly notice it everywhere.



Sharon Benzoni



knows-where. In East Legon – a wealthy neighborhood in the north of the city — as of this writing, taps had just begun flowing after weeks of no water. People came running to fill up all the containers they had; you never know when it will stop flowing and the search for water will again become an epic struggle.

In Nima, as in many low-income informal settlements, the problem of water is even more complicated. “Nima,” the younger Mariam told me, laughing, as we wound our way through narrow alleys crisscrossed by open drainage, “is only gutters.” Her evocative wording reflects her mother’s more straightforward

statement of the issue: “We don’t have streets in this community.” And so even installing municipal water is a huge challenge. So is filling Poly tanks; the big water trucks’ long hoses can’t reach the interior of the community. Mariam bought a Poly tank some years ago with a loan from USAID, but her tap is connected to the municipal supply. She also has a borehole — again, built with a loan, this one from CHF — but the water from the well is salty and certainly not potable; it can only be used for washing clothes and bathing. Her household of nineteen (possibly more) uses five Gallons (50 liters)



Mariam and her Poly tank, bought with a loan from USAID.

Sharon Benzoni



of water per day. Even this water’s drinkability is questionable. Most people drink purewater from sachets if they can afford the 10 pesewas (5 cents) each 500-milliliter packet costs. Water pressure from the municipal supply tends to be better at the main roads — too many people have tapped into the pipes far from the main lines.

Serge Attukwei Clottey remembers the Kufuor Gallon from his childhood. “The yellow Gallon has inspired me for a long time,” he says. A native of La, a tiny, crowded indigenous Ga fishing community on Accra’s coast, he lives in a small family home there where he plans and creates art

installations using the Gallon. As a child, he lived with an uncle who had a big fountain where everyone from the neighborhood came, with their Gallons in tow, to collect water. “Water stress was very high,” he told me. “People spent nights on the streets” waiting in line to collect water from any available source. Now, the Gallon has become his signature as an artist. In a recent public art installation for Ghana’s 56th anniversary, he created a wall of Gallons — representing the Akosombo Dam, the source of much of Ghana’s water supply — and painted the face of Ghana’s legendary first president, Kwame Nkrumah, on it. Nkrumah built the

Hauling water long distances is part of many people’s daily routines in Accra.

Sharon Benzoni





dam and, Clottey feels, his visionary plans for the country’s development have been betrayed by a corrupt and ineffective political system. Once, he dressed up in a suit and carried a Gallon reading “Are We Free?” into various institutions like banks and offices buildings, driving home the idea that everyone needs the Gallon. “I see the Gallon as part of our skin — every day we use the Gallon.”

Auntie Mariam has praise for the Gallon as a water container. “Using the gallon is hygienic,” she says. “If it’s clean, it’s the perfect tool.” The Gallon has a lid that keeps out dust and other contaminants, so storage isn’t an issue. An empty Gallon costs 2-4 cedis (\$1-2 USD).

To fill the Gallon at a local water vendor — from a Polytank or private tap with municipal water — costs between 30 pesewas (15 cents USD). For delivery, a Gallon can cost 1 cedi (50 cents USD) or more.

The younger Mariam, her sisters and I make five stops at Polytanks and municipal taps, winding our way through the narrow pathways of Nima before we finally find a place to fetch water. Several of the sources we try have run dry, at one the line is too long and at another the only water available is brackish. When we find our tap, I look up and see a landmark I recognize – a car sticking out of the side of a building that you can see from the

Serge Attukwei Clottey with one of his art installations.

Sharon Benzoni

main road – and realize that we’ve walked a long way in the 56 minutes since we started the hunt. We wait as several people in front of us fill their buckets and Gallons, chatting and gossiping, until it is finally our turn. The girls expertly balance the full containers on their heads, and Mariam warns me not to even try that move with something so heavy. So I lift my Gallon up, cradling it like a baby against my chest. I make it about 500 feet before Mariam makes me stop: “It’s spilling all over your clothes,” she says. I’m relieved but embarrassed. Ten liters of water is a heavy load. One of the other girls waits with my Gallon while we return to the compound, about a ten-minute walk from where we’ve ended up. “You do this every day?” I ask Mariam. She nods. Every day before she gets ready for her work in the tailoring shop where she is studying. Sometimes they go farther, walking all the way to Airport Residential.

Both before and after my water mission in Nima, I began seeing the Gallon everywhere, in its primary use as a water container as well as in the inventive re-purposings of broken Gallons, from the art of Serge Clottey, to kenkey-containers, to waste bins, to a “For Sale” sign on top of a car. As Clottey told me, “The yellow Gallon comes to us as an oil can; if you don’t have it you

can’t survive this water stress.” But it goes through a long life in the hands of its water-stressed owners, a life reflecting their own day-to-day struggle to meet this basic need. “So many stories,” Clottey says, “come in a container.”



# Crowded House

## Accra Tries to Make Room for a Population Boom

**Sharon Benzoni**

**Photography by Nyani Quarmyne**

It's Sunday evening in the Ussher Town section of Ga Mashie, and life outside Joseph Quarteh's house is in full swing. A group of small children dance the latest variation of azonto to the music that swells in the streets. Their mothers and aunts sit nearby on wooden benches and plastic chairs, selling fried pork and cold purewater from blue coolers. Joseph, the patriarch, is watching the football game on television somewhere nearby. When nearly 50 people live in your house, it's easier to watch TV somewhere else.

According to a report by Global Communities (formerly CHF International, and still called that in Ghana), in Ga Mashie an average of 48 people live in each house. Which is why most of the time, especially on Sundays, families stay outdoors, where there's more elbow room. At night, the streets of Ga Mashie are sardined with slumbering bodies—one 2010 study by CHF found nearly 3,000 people sleeping outside in an area less than one-fifth of a square kilometer. In other parts of the city, the crowding is so intolerable that people sleep on the steps of shops, even in wealthy neighborhoods. Shop owners spend their nights on the floors of their kiosks, or rent them out to others to sleep in. In the most crowded areas, where there's literally not enough space for everyone to lie down simultaneously, people sleep in shifts.

Inside Joseph's house, a few young women are getting ready to go out to a club. Abigail, 18, rubs shea butter on her calf while Gladys, 19, combs her hair in a corner. The room they are in is off to one side of an alley, a sort of public corridor that divides Joseph's house in half. It is uncomfortably hot in the room, though it's well after sundown. A pile of plastic woven mats in the corner betrays the fact that nearly thirty people share this 10-by-15-foot room.

Tonight, the girls tell me, most of them will sleep outside, in the street where it's cooler. "What about when it rains?" I ask them. They shrug. The answer is obvious: Everyone has to crowd inside the tiny room.





A woman bathes her child on the street in Ussher town.

This is what life looks like in much of Accra, a city suffering from a housing crisis that’s been gathering for decades. As population growth and urban migration have swelled the city with new residents, the housing supply has not kept pace. As a result, around 90 percent of urban housing in Ghana is informal, according to a report by UN-Habitat, and 53 percent of Accra’s households occupy a single room. Meanwhile, housing costs have risen faster than income levels, while at the same time the government has systematically reduced its role in housing provision.

The result is a city where communities that barely have room to breathe are crushed up against the high walls of gated communities filled with sprawling lawns and swimming pools; where a housing market’s dysfunction is exacerbated by the fact that private developers are uninterested in creating more low-income housing even though that’s exactly what the city needs; where a rental system allows landlords to gouge desperate tenants; and where a financing model geared toward the wealthy makes it all but impossible for middle-class residents to buy a house.

Though these problems seem deep-rooted and intractable, solutions lurk just below the surface. Pilot programs led by community groups are working

to densify the city, and legislation for more subsidized housing is in the pipeline. For now, however, the most effective solution that Accra’s citizens have at their disposal is each other – the strength of their exceptionally robust informal networks, which keep the crisis from morphing into chaos. Through a system of social ties forged through family and friends, the people themselves are managing to mitigate the housing shortage. In a city where many have no adequate shelter, it seems nearly everyone has a home.

The Big Squeeze

At around 8 p.m. on Sunday, most of Joseph Quarteh’s family, like the rest of Ussher Town, is making the rounds at the funerals that take over the neighborhood’s streets on weekends. Seven-foot-high speaker systems bookend each funeral party, blasting Ghanaian and Nigerian hits. The smells of jollof rice and fried yam mingle in the air. A man has his arms up, a pair of tongs in one hand, dancing in front of a grill packed with kebabs. Men and women dressed in black-and-red or black-and-white cloth sit in plastic chairs, chatting and eating.



With little room for toys in most houses, children set up their games outside.

Ghana is known for its elaborate funeral rites. But in Ga Mashie, which makes up several neighborhoods in the innermost part of Accra, including Ussher Town, the city’s housing crisis means there’s no room even for the dead. As Joseph explains to me, typically a family would hold the wake in the courtyard of a family member’s house. But now, says Joseph, there’s not enough space, so funerals take place in the streets. As darkness falls and a cart rattles by carrying chairs and a giant fan to one of these funerals, people are already spreading out cloths on the pavement, settling in for the night. Later, as the funeral parties wind down, the streets will fill with more sleeping people, arranging themselves like a giant human jigsaw puzzle on the road outside. In the mornings, you sometimes find little spirals of ash on the streets, the remains of scented coils burnt to keep mosquitoes at bay. Besides the obvious dangers, the malaria-ridden insects pose another threat to Ga Mashie’s fitfully sleeping residents.



This surreal nightly scene is borne of “sheer political economics,” says historian and former Accra Mayor Nat Amarteifio. “Land in Accra is expensive, very expensive. And housing is expensive, very expensive.” Like most cities in Africa, Accra is growing fast, swelling with rural migrants attracted by its higher incomes. But its popularity has generated higher costs of living, too. One recent report published by The World Bank (“Is Accra a Superstar City?”) put the city as the 75th most expensive in the world, between Melbourne and Houston, whose residents make ten times more money.

That means that it’s not just the poor who are squeezed out of formal housing, but the growing middle class, as well. Even though the Accra’s residents earn more than people in Dar es Salaam or Addis Ababa, the residents of those cities enjoy better housing conditions. The paradox is glaring: Ghana is home to one of the fastest growing economies in the world, yet its capital city can’t even house its own people.

There’s no single reason for this, but rather a multitude of conspiring factors. The World Bank report speculates that the roaring economy has caused land prices to spike, resulting in a “very inelastic” housing-supply market. This means that even as demand swells, not enough new units are being built, leaving the city with a need for 5.7 million new rooms by 2020. To be sure, construction is happening—booming, in fact—but it’s mostly large houses and luxury apartments, their cavernous rooms and expansive yards swallowing up precious land. Much of this high-end development is fueled by remittances from Ghana’s huge diaspora. “Every Ghanaian has a relative abroad,” says Philip Oduro-Amoyaw, Head of Strategic Planning and Research at HFC Bank. “Ghanaians culturally look back home and cherish home ownership.”

The irony is, there’s actually vacant land all over Accra, thanks in part to a traditional system of communal land-ownership that still holds sway. Half-built structures can be found throughout the city, often on the very best real estate. Many are doomed to sit unfinished for years while their titles are tied up in litigation, as multiple “owners” queue up to claim them in the overtaxed court system. Government policies make the process of land acquisition even lengthier and more expensive. Furthermore, many people build their homes over the course of many years, slowly adding cement



A mother and her child nap in a corridor off their courtyard.

blocks as they’re able to buy new materials and hire labor. It’s not unusual to see caretaker families who have been given permission—sometimes they even pay rent—to live on disputed land or in incomplete structures.

If the private market is half the problem, however, the public sector is the other—the government of Accra has not made affordable housing a priority in decades. “Housing is not a core business for the municipalities,” says Ellen Nsiah, Executive Director of [Housing the Masses](#), an organization that facilitates housing reform and provides technical support for low-income communities. About 9.3 percent of all rental or rent-free housing in Accra is publicly owned, but there used to be much more. “The city has quite a history of building for the masses,” says Amarteifio. A number of workers’ housing projects were begun in the 1940s and continued under President Kwame Nkrumah as part of the State Housing Corporation, and later by the Social Security and National Insurance Trust (SSNIT) in the 1970s. But later in the ’70s, says Amarteifio, the “desiccated economy” drove more Ghanaians into urban centers, driving up housing prices. Around the same time, structural adjustment programs pushed by the World Bank and International Monetary Fund discouraged government spending on social programs like housing.





A compound shared by several households in Ussertown.



With the economy in collapse, Accra’s construction companies “went belly up,” says Amarteifio. Tenants who couldn’t pay their rent also couldn’t be evicted without serious political consequences. The State Housing Corporation went bankrupt, and the city’s housing crisis began in earnest. The experiences of this era, combined with policies that promote low-density development, have made social housing development unpopular in Accra. “The state has shifted its ideology,” says Augustine Adams of CHF International. “It’s not so much interested in housing the masses. It’s all private-sector driven now.”

“The biggest thing over the last 10 to 15 years we’ve seen are large increases in the private sector entering into the housing industry,” says Alexander Tweneboah, a private real estate developer and the Immediate Past President of the [Ghana Real Estate Developers Association](#) (GREDA). “But the majority are concentrated on the high end of the market. A few have also concentrated on the middle. The problem has been on the lower end.” Though there is plenty of pent-up demand for low-income housing, he says, the private sector has not been able to produce housing in high enough volumes and for low enough rates. Material costs, land values and the lack of infrastructure have driven up the price of construction. Cement, for example, costs twice as much in Ghana as in the U.S., and the quality is generally lower. Private developers must also often build roads, water and electricity connections at their own expense. Meanwhile, high interest rates on loans drive up costs even further. The best he’s able to do, Dr. Tweneboah says, is produce units that would be repaid at a rate of 150 Ghana cedis (\$75 USD) per month. Low-income earners, however, want to pay 30 Ghana cedis (\$15 USD). “The bank won’t give us money at this repayment rate,” he says.

Though Ellen Nsiah, too, cites a number of factors contributing to inadequate housing, from the problems of traditional compound construction to the high cost of imported building materials, she believes that policy and finance are



Theophilus Anonue surveys the street from the clubhouse that he and his friend Ahmed Saraku built.

the two key factors holding up the development of affordable housing. The national government, she says, should compel municipalities to provide low-income housing for the people. “Then we are going somewhere.”

But the financial system is holding up what progress could be made toward meeting the enormous demand. “The financing has now become the bottleneck,” she says. Low-interest mortgage and rental loans need to be accessible. Right now, she says, the cost of borrowing is too high, with interest rates for mortgages around 12.5 percent in U.S. dollars, and 20 percent in Ghana cedis. They would need to be half that for mortgages to be viable.

Some banks are beginning to make progress on low-cost small or micro mortgage loans. HFC Bank recently opened “HFC Bofo,” a range of banking services aimed at the urban poor. Low-cost mortgages, secured against savings, are among the products they provide. Still, Nsiah asserts that mortgages are difficult to get, and in any case are of no help to renters. And, as Philip Oduro-Amoyaw from HFC Bank points out, four out of five Ghanaians are still divorced from the formal banking sector. But some progress is being made. HFC worked with a number of NGOs to set up financial products for poor urban dwellers to improve their housing, subsidize landlords in slums to make basic sanitation improvements, and finance housing construction and mortgages. G-Fund, an initiative of the [People’s Dialogue on Human Settlements and the Ghana Federation of the Urban Poor](#), was started in 2005 and gives members of their community savings group access to capital for, among other things, home improvement, construction and down payments for mortgages, all at rates well below market prices. Their goal is to improve the lives of at least 100 million slum dwellers by 2020.

On the supply end, though, no one seems to be taking the bait. NGOs like CHF International and UN-Habitat, and a few individuals in industry and academia, are the only ones who have taken a serious interest in low-income housing development, and they typically have money only to complete small-scale pilot projects in an attempt to prove the model. “Some of us have a bit of a social conscience,” says Dr. Tweneboah, who is leading one of these projects. “And that’s why some of us have taken it on.” Nsiah just shakes her head when I ask if there are any companies getting into low-income housing





A crowd in Ussherstown gathers around a TV set to watch a football match.



development at a larger scale. A few are theoretically interested, she says, but none are making a move.

“I would be extremely surprised to find anybody who is actually investing in low-income housing,” Amarteifio says. “I would be pleased to see it because we cannot keep creating kiosk cities.”

### Swimming Pools and Drainage Ditches

“As our lives change,” says Nsiah, “we should change the way we live.” She is referring to the common Ghanaian dream of building—not just owning, but building—a home. It is a mark of pride, of success in life, and something can be handed down to children and relatives. “It’s like a status symbol,” says Nsiah. “I built a house.”

This dream can be seen playing out in two very different ways in Accra: In its middle- and high-income neighborhoods, and in the “pocket slums” wedged between them. **Trasacco Valley**, the highest-priced real estate in the city, is a classic gated community. Peering in through gaps in the walls from the outside, I’m surprised by the little pang of jealousy even I feel looking in. Unlike some of the large but often gaudy-looking houses in nearby East Legon, these homes look stately and refined. Elegant landscaping, tasteful design, lush plant-filled balconies—I can imagine the gardens and sparkling swimming pools in the backyards.

On a stretch of bare land between this gated community and the Accra-Tema Highway, an informal settlement of tiny one-room shacks is home to over 500 people. The houses are built right up against the walls of Trasacco Valley—walls that were built by the hands of the informal settlers themselves to keep them out of this little slice of paradise. Seraphim Apraku, 24, and Prica Bakuyeya, 26, are sisters who have lived in the informal settlement with their husbands for nearly four years. They moved here from a village in the Volta Region, a few hours’ drive northeast of Accra. Their water source is an open pond, supplied by drainage that runs under the highway from an industrial area on the other side. They had no electricity until recently, when some of the families hooked up illegal connections. There are no toilets or even latrines; they use the “pan latrine” system or go in the bush.



Joseph Quarteh stands in front of the house that he shares with almost 50 people.

The workers’ pay, they say, is not enough for them to afford rent elsewhere in the city. Though the company doesn’t mind the workers living here, the sisters say they’ve been told that “the women should go and the men should stay.” I am reminded of the mining camps in South Africa, famous for separating workers from their families, which gave rise to prostitution and broken homes. According to the sisters, the Trasacco company occasionally sends the police to tell them to destroy the newer structures they have built. When I ask them how they feel about living like this adjacent to some of the most sumptuous houses in the country, they tell me: “We feel like we are nobody.”

These are the kinds of stories you hear when you start asking people about their housing situation in Accra, stories of improvised solutions that few would consider adequate. A taxi driver I know well, Immanuel, described for me his spacious and relatively inexpensive house—in Kasoa, two hours away from Accra and owned by one of his sisters. You meet people like Immanuel all the time, of a wide range of income levels, living well beyond the city’s borders, giving up four hours of their lives each day to get in and out of the city. And that’s if they can afford the commute. Alice, a purewater seller whose closet-sized shop was until recently located at 37 Station, a major transit hub in northern Accra, has to sell at least ten to fifteen wholesale-



sized bags of purewater in a day just to make enough profit to pay the five cedis (\$2.50 USD) roundtrip to her home in Kasoa. She often stays with a friend in the city since the trip is so long and expensive. She’d like to have a room in Accra, but she can’t afford the rent.

The rent. This is a central struggle for those who cannot or no longer want to live in overcrowded family homes. Back at Joseph Quarteh’s house, I ask Christiana, one of his relatives, who at 28 is married with two children, why she still lives in her family house. She and her husband have been saving for the rent on a small one-room apartment in a compound house in Maamobi, a poor neighborhood just north of Nima. They will have to pay two to three years of rent in advance. This is standard practice among Accra’s landlords, who have an advantage in such a tight market. Evictions with very little notice are common. Dr. Ohene Sarfoh, director of the Ghana Urban Platform, describes fights he’s seen break out at the Rent Control Department between tenants and landlords.

Yet despite the hardships peppered throughout these stories of housing woes, something stands out about them: Everyone telling them has, if not a house, at least a place to sleep at night. It’s a quirk of the crisis that can be traced back to the strong informal networks that exist in Ghanaian culture – in a city long besieged by a housing shortage, homelessness is only just now becoming a problem.



Roberta and Abigail Quarteh get ready for a night on the town. They share this room with 25 extended family members.

### The Invisible Homeless Ghanaian

“Is it true,” I ask Solomon Tetteh, a young activist and scholar from Ga Mashie, “that there’s no word for ‘homelessness’ in Ghanaian languages?”

We are sitting in a small bar at the edge of Ussher Town that in a few hours will transform into a thumping party spot. A waitress is putting plastic chairs and tables out on the street, which will soon be crammed with young people dancing, drinking, eating. Tetteh looks thoughtful. “Yes,” he says, “I think that’s true.”

I was intrigued by the idea that homelessness is a foreign concept in a city apparently suffering from an epidemic of it. An acquaintance of mine who studies homelessness in Accra had told me that not having a place to sleep is not the equivalent of Western notions of homelessness. “Homeless” people from families outside Accra do have a home—in their family village. When they come to Accra, they find a place to stay, with family or friends if they can, or in some kind of improvised housing if they can’t. This is one of the oddities of housing in Ghana, and it hints at a complex set of cultural ideas about land and shelter that make fixing the situation about more than good policy and adequate financing. Though there is not enough housing in Accra, says Ellen Nsiah, very few people don’t have a place to sleep.

This is further confirmed by the fact that, according to census reports, nearly one-third of Ghana’s urban households don’t own a dwelling or pay rent of any kind. In Ghana, as in many African countries, the culture of obligation among the extended family system is strong—some argue that the failure of states to provide social assistance has in fact strengthened these ties. In the 1980s, when Nigeria ejected Ghanaian migrants en masse, international bodies predicted a refugee crisis back in Ghana. None emerged, a fact that has been attributed to extended families absorbing the returnees. In urban Ghana, these informal networks have also absorbed a great deal of cities’ population growth. “The family house system in urban Ghana,” says the UN-Habitat report, “is the social safety net that prevents homelessness from being much of a problem in Ghana.”

Crowding, though, is becoming worse and worse. People endure inadequate sanitation. Some even live in converted bathrooms. And as urban areas balloon with migrants, the family housing system is breaking down, unable



to absorb more than it already has. Still, even those who are forced to improvise, renting space in kiosks and courtyards, often do not see themselves as homeless. “Until recently,” says the UN-Habitat report, “it could be said that homelessness was an unknown concept in Ghana. [E]veryone has somewhere, a family house in a city or village, which, if they have to go there, people have to take them in.”

This is a double-edged sword. The fact that people are willing to squeeze fifty family members into a dwelling means, in part, that “there’s not an urgent push for the government to get behind affordable housing,” says Dr. Sarfoh. “Housing is not seen as a right that you pursue.”

In a place like Ga Mashie, where social networks are especially thick because of the Ga people’s long history there, everyone has a home, but no one has a decent home. Here, as the population has grown, the families have divided and subdivided rooms in their compound houses until dozens of people can claim ownership of a single room. (“Instead of landlords, you have roomlords,” Augustine Adams told me.) Those who can make enough money often leave, while the poor stay behind, hoping to scrape together the cash to rent their own place. But even though leaving seems like the only option to improve their quality of life, many in Ga Mashie are loathe to abandon their dense networks of family and friends.

Take Ahmed Saraku, a young 20-something boxer who I met in the clubhouse he and his friends built to watch local football matches. Saraku says he wouldn’t want to live anywhere but Ga Mashie. Despite the crowding and other challenges, I can see why. The street funerals and public activities—watching football around a small square, gambling and chess-playing, young men and women parading down the streets—add a certain character and charm. In a city where there is very little apparent public life, the liveliness of Ga Mashie’s party-filled streets is a welcome contrast to forbidding walls and empty, locked up “parks” in other parts of Accra. But this public life provides far more than just charm—the social exchanges strengthen bonds of friendship and kinship that people rely on for survival.

But Saraku also believes in the need for change. He tells me he convinced his grandmother to participate in a plan, initiated by CHF International and now being run by the Ga Mashie Development Agency and UN-Habitat, to

build mixed-use multi-story structures in Ga Mashie that would ease the crowding. Investors would build the buildings and share rental income from the commercial and residential spaces with the families. After 25 years, the contract would expire and the families would retain all the ownership rights to the building.

Saraku’s grandmother’s initial reluctance wasn’t just fear of change. The peculiar set of land issues that arise from traditional inheritance practices have created an unusual dilemma for the Ga people, whose land at the very center of Accra should be some of the most valuable in the country. But because of the cultural tradition that says your family house is communally owned, selling or leasing land is extraordinarily difficult. Multiple people claim a stake in these houses, and decisions must be made by consensus. Plus, most of the land owned by these families isn’t registered with the government (a prerequisite to formal building); instead, it’s owned under the traditional authority, the Ga Mantse. Complicating matters even further, ancestors’ bodies are buried in courtyards, giving the physical structures spiritual significance.

The CHF International plan holds innovative solutions to these issues – for instance, registering the land under the name of a common ancestor, essentially creating a family trust. After lengthy discussions with the families and traditional authorities, many families, like Saraku’s, have agreed to formalize their ownership in this way. Honorable Emmanuel Botchway, an Accra Metropolitan Assemblyman for Ussher Town, says that the young people of Ga Mashie, “who have gone to school and acquired knowledge,” have been advising the elders and traditional authorities, urging them to participate.

But will they get funding? As Solomon Tetteh and I walked through town, we spoke with a number of people who, initially reluctant, had agreed to be part of the project and were now concerned that no ground has been broken. Tetteh, who has been an ambassador for the project, explains that they are looking for investment. Finance, the bottleneck, is holding things up yet again.



Joseph and three of his sons in the room they share with his wife and another son. Sometimes up to nine people sleep in this room.



Accra Rising

“There comes a time in the life of a modern city,” journalist Roman Mars recently began his podcast, 99% Invisible, “when it begins to grow up. Literally. If there are a lot of people in one place, it just makes sense for us to stack ourselves on top of each other.” Or, as Alexander Tweneboah puts it, “We need to start considering density.”

With a lack of affordable options at the city center, it’s no surprise people are moving to suburbs and sleeping in kiosks. Initiatives like the Ga Mashie housing project are attempting to densify the city. And densification is indeed happening, but, as Dr. Sarfoh says, “None [of it is] addressing low-income needs.” Cities in many other countries, he says, have laws compelling private developers to provide low-cost housing along with their high-income developments. The government in Singapore, says Dr. Tweneboah, started building six-to-eight-story buildings in the 1960s. “Now,” he says, “they’re knocking them down and building 10-to-15 stories. We haven’t even started yet.”

Densification is one possible future for Accra, but as is clear from the stalled Ga Mashie case, it’s not easy to manage. Financing, securing land ownership and temporarily relocating skeptical occupants are all challenges. Dr. Tweneboah, though, says that densification of the inner city is not impossible. “Show that it is possible and profitable,” he says, “and investors will come.”

Another option, of course, is sprawl. “Most cities grow organically,” says Tweneboah, “and you cannot stop the growth.” Though it’s far from ideal, even this urban model can be managed to promote a type of density. For example, loans could be given for home completion, especially for compound houses, in which so many Accra residents rent rooms. These compound houses are, effectively, a type of informal densification, since several households often occupy each one, whereas formal private developers prefer the single-family bungalow style. As slums from Mumbai zto Nairobi have proven, low-rise doesn’t necessarily mean low-density.

Meanwhile, slum upgrading can improve the living conditions of those who dwell in the larger slums. This is already being done sporadically, often with community organizations, such as Mother’s Club in Nima, partnering

with NGOs. CHF International, for example, has turned its attention to slum upgrading, and Ghana’s new Urban Policy Framework concentrates on providing toilet facilities, water access and loans to improve existing structures.

Formal densification, in the form of tall buildings and flats, if it is to be undertaken, will take serious commitment and coordination, especially in places where land tenure is not as straightforward (relatively speaking) as it is in Ga Mashie. One project, in Amui Dzor, a slum neighborhood in a suburb of Accra called Ashaiman, suggests it can be done. The project was part of UN-Habitat’s Slum Upgrading Facility, and was undertaken in cooperation with the People’s Dialogue on Human Settlements and the Ghana Federation for the Urban Poor with funding from the Gates Foundation. Alex Tweneboah is chairman of the project. They negotiated with the local traditional authorities to provide the land for a minimal fee in exchange for a stake in the project. It is similar in design to the proposed Ga Mashie project: Mixed use with commercial and residential space that will both provide better quality housing for residents and income for investors. On land that was once occupied by nine families, 31 families now live. The building has private toilet facilities and public toilets for community use.

But the project nearly failed, stalled, once again, by finance. This is so often the sticking point, and with Ashaiman, as in many cases, it boils down to the conservatism of the Ghanaian market. UN-Habitat, in order to get private funders to invest in the project, had to source funding as a credit guarantee to reduce the risk the investors took on. According to Dr. Sarfoh, who was also involved, “The market is so conservative that in the end we were providing a cash guarantee”—that is, their funders had to pledge to to pay back 100 percent of any investment not returned. A comparable project in India, he said, was able to get a credit guarantee as low as 10 percent. “A 100 percent guarantee is not good enough,” says Ellen Nsiah. “We need financial institutions to be prepared to work with low-income earners.”

And the markets need to be encouraged to finance housing projects. “We have the second-highest interest rates in Africa,” says Dr. Tweneboah. “The fifth-highest in the world.” In part, this is probably because the government maintains high interest rates to keep inflation in check. In addition, says Dr. Sarfoh, “mortgages [were] a very minimal asset” until recently, when the





A family sleeps  
at the edge of an  
intersection while  
children play nearby.



Home Finance Company (HFC) was created in the early '90s. There are a number of monetary policies and incentive schemes the government could implement, he says, that would lower interest rates for home financing.

A fundamental shift in the view of housing has to take place at a government level, says Dr. Tweneboah. "The problem is that governments in the past were misconstruing housing. They all see housing as a capital expenditure item, but not a revenue item. But if you look at the dynamics of the housing industry, it actually creates revenue."

There are nascent signs that the government is starting to get this. A National Finance Facility in the legislative pipeline will, if it passes, help to subsidize housing projects and provide further credit guarantees. This facility will, according to Nsiah, source funding and lend to cooperative bodies, agencies and social housing institutions to develop low-income housing projects. If modeled on or supporting the People's Dialogue's G-Fund, this could be truly successful. As the UN-Habitat report states, "Urban poor funds, which put money under the control of and behind the urban poor, are a sure way to address and scale up housing and poverty reduction solutions."

The Ashaiman project, Dr. Tweneboah tells me, "can be replicated, but it must be subsidized." Nsiah agrees. Once these kinds of projects, with appropriate subsidies in the form of loan guarantees, are shown to be profitable, the private sector will follow suit.

The Ashaiman project, like the G-Fund, was led largely by both the People's Dialogue on Human Settlements and the Ghana Federation for the Urban Poor. Both are affiliates of Slum Dwellers International, which rose out of South African activism. Singapore, Dr. Tweneboah's shining example of urban densification, shows that government-led housing development can work; with its housing policies, that city has attained 90 percent home ownership in sixty years. But in Ghana, where public housing projects have fallen out of favor and the private sector has little incentive to enter the low-income market, perhaps what is needed is a push from below.

"We need to create an opportunity for sea change in government policy orientations," says Dr. Sarfoh, "to try to create a groundswell of activists pushing for affordable housing, for inclusivity. In South Africa, consistently,

the low-income have a voice... Shelter is a fundamental human right and the state has a critical role."

The future of housing in Accra, then, hangs in the balance. The financial environment is difficult, the public is being squeezed out and both the public and private sectors are apparently divested from low-income housing development. If Accra's residents are to have a decent standard of living, real leadership is necessary.

"It's not impossible," says Amarteifio, "but it will take a leap of imagination on the part of many people to design new possibilities."



# Bangkok, Thailand





With its sparkling skyscrapers and sprawling slums, Bangkok is a city caught between worlds. Even as it morphs into one of Asia's most important global business hubs, a large portion of its workers continue to make their living in the informal economy. Private motorbikes and taxis still provide the lion's share of public transportation, street vendors crowd the sidewalks and even most of the city's ambulances are informally operated.







**100,000 street vendors work in Bangkok, selling snacks, clothing, jewelry—even water guns during Thailand’s annual nationwide water fight, Songkran.**







PLAY VIDEO



**In the slum of Klong Toey, basic amenities like a semi-enclosed community sports field are evidence of Bangkok's efforts to upgrade its informal settlements.**





**In Thailand commercial and household recyclable waste is manually sorted and collected “on site” at office buildings and affluent gated communities.**







**Thailand's famous masseuses epitomize the informal worker: Despite being highly skilled and ambitious, they often labor for little money and enjoy few protections.**



# The Middle-Class Vendors Shaking Up Bangkok's Street Trade

Witchaya Pruecksamars

“You don’t have to pretend to be doing a research,” says the street vendor when I ask him how much he pays each month for his spot on the sidewalk. “If you want to rent this space from me, you can just say it.”

With his crisply ironed shirt, skinny jeans, spiky black hair and lanky frame, P’ Ae looks more like a K-pop boy-band member than a vendor working in Bangkok’s bustling Siam Square. Thirty-one years old, he wasn’t even born when this neighborhood first developed as a modern shopping district in the ’70s. He knows it only as it is today: a barrage of local boutiques, tutoring schools, trendy restaurants, and randomly scattered vendors. Positioned near the bottom of an escalator that leads to the Skytrain platform and illuminated by two naked light bulbs, his shop is a self-assembled stall where passersby linger over his collection of earrings, neatly displayed on a vertical wire grill and laid out on a table top.

“I’m willing to tell you anything, as long as you don’t ask me where I sourced my products from or how much they cost,” he says. “That’d be like asking for the recipe of my noodle.”

Such skepticism is to be expected from a Bangkok street trader wary of competition. Less expected is P’ Ae’s business pedigree — he holds a master’s degree in management from Brunel University in London. Before becoming a vendor, he worked as a manager at an insurance company making 45,000 Baht per month (around \$1,500 U.S.) and prior to that, as a consultant to a plant that produced electronic parts for export. (He quit before the mega-flood that inundated Thailand in 2011 closed the factory). It wasn’t until half a year ago that he set aside his managerial career to pursue a living in retail, doing so for the same reason cubicle drones the world over decide to strike out on their own. “I was bored,” he says with a shrug. “In the end, the company doesn’t really care who you are or what you do.”

At first, P’ Ae rented out space for his store at shopping centers, most recently at an air-conditioned mall called Bonanza. One retail space at the mall costs 30,000 Baht per month, and at a discount, he was renting two for 55,000 Baht.

But with the high rent, he found it impossible to turn a profit. So a few weeks ago, after only three months at the mall, he broke his one-year lease, sacrificing his two-month deposit worth 110,000 Baht (about \$3,600 U.S.) and hit the streets.

He got himself a stall and moved to the sidewalk space where we now stand — a stone’s throw away from Bonanza — for which he pays less than a quarter of what the mall charged him. Since moving to the street, he says, his sales have tripled. And the flexibility of street vending keeps his business nimble. “The good thing about street trading is that you don’t need to sign a contract,” he says. “You can rent out your space [to other vendors] on certain days, you can set up your shop at multiple locations if you can afford to, and you don’t need to come if you feel sick.” Most significantly, he says, “It is a system that allows for trial and error.”

The business acumen P’ Ae brings to his street-vending operation may



be unusual, but it isn’t unheard of. “These vendors are not only the poor, but also the well-to-do,” he explains — a phenomenon that’s becoming more common. Over the past couple of decades, the socioeconomic profile of Bangkok’s street vendors has gone from uniformly poor to surprisingly diverse, with people from all walks of life. Former bankers, bureaucrats, pharmacists, and others from middle-class backgrounds, like P’ Ae, have been making the leap into the informal fray, some by choice, others after losing their office jobs.

Shoppers check out the merchandise at P’ Ae’s stall in Siam Square, which he set up after deciding his space at the mall was too expensive.



## “Former bankers, bureaucrats, pharmacists...have been making the leap into the informal fray”

These well-educated entrepreneurs with prior experience in the white-collar world have been called Bangkok’s “new generation” of vendors, and they’re shaking up the social dynamics of the street trade. “Some of these guys come from [lower] social strata,” says P’ Ae of his fellow vendors in Siam Square. “They will mess around or even try to bully you.” Hence his fashion-forward outfit and styled hair. By dressing sharply, he says, you let “the guys know that you are not from the same background as them,” and therefore not to be taken lightly. “That guy over there, for example,” says P’ Ae, pointing at a boyish figure in a stained baseball cap, “he’s 38 but he calls me ‘P,’” a prefix for “older brother” and a sign of deference. “Sometimes he runs errands for me.

Last time I asked him to get me a pen and I tipped him 20 Baht. It’s not a lot [but] ...you will get their respect.”

The errand runner also sets up stalls for the area’s vendors, who pay him 40 Baht apiece, or about \$1 U.S. “Say he sets up ten stands per day,” says P’ Ae. “That’s 400 Baht already” — not bad for a low-skill part-time job in a city where the average starting salary for a public servant with a master’s degree is as low as 12,000 Baht per month “There’s also storage service, because you can’t afford to drive a pickup truck here every day.” According to P’ Ae, “all of the markets in Thailand have similar arrangements.”

P’ Ae has no intention of remaining a modest vendor hawking earrings — at least not one at a time. According to his business plan, he’ll use his time on the street to analyze the market, figuring out which items or styles are most in demand. Once he’s confident he’s got a read on it, he’ll expand into more locations, hiring a small staff to run the new stalls. “Say you make 30,000 [Baht]

P’ Ae joined the growing ranks of middle-class vendors plying their trade informally on the street.



of profit per month, per stall. What would you get if you can set up four stalls?” He asks, as if to say: you do the math.







# The White-Knuckle Nights of Bangkok's Volunteer Ambulance Squads

Witchaya Pruecksamars

It's 2 a.m. on a Friday night in Bangkok, and the clubs are closing. The city's fever pitch is now behind it – the pounding beats and colorful lights are dying down; taxis blast through red lights to make quick runs during the golden hour; tall groups of farangs stand next to the stuttering engines of tuk-tuks, negotiating their way back to the hostel; club-goers sober up with chicken rice, warm soup and cold tea. Against this garish late-night backdrop, young volunteers dressed in army-green aviator jumpsuits — the uniform for rescue volunteers — wait for an emergency.

"P', come quickly!" Nong shouts to me, in a voice that says every second counts. An accident has just been radioed in: A motorcycle ran into a taxi, degree of injury unknown.

It's our first case since midnight — strangely uneventful for a Friday, say the volunteers. Nong, 19, and his crewmate B, 20, are already at the back of the ambulance, ready

to roll. Tui, a full-time medical technician from the Ruam Kayanyu Foundation, takes the wheel. I slide the door shut and sit facing the rear. The ambulance tears off into the night with rapt anticipation mixed with a somber sense of mission — for all we know, somebody might be in agony right now.

These volunteers are known to the world (or at least the internet) as the "body snatchers" of Bangkok. They've been valorized by some and demonized by many. But they don't really care. They simply continue doing what they do, which includes rushing pregnant women to the hospital; storming into burning buildings; cleaning up after shootings, stabbings and suicides; capturing pythons and other urban wildlife; and, most importantly, making sure that accident victims receive proper "pre-hospital" care in this ambulance-starved metropolis.

Bangkok has 150 hospital-operated ambulances for its population of 12 million, less than half of what most cities in more developed countries have. But thankfully, there are more than 4,000 volunteer ambulances: Modified vans and pick-up trucks outfitted with stretchers, providing this megacity with an enormous, informal first-responder system.

The ambulance I'm riding along



Faced with a severe shortage of formal ambulances, Bangkok's first-responder system is largely informal, made up of volunteers in modified vans and pickup trucks.

with isn't purely volunteer, per se. It's part of a small fleet of 25 ambulances that the Ruam Katanyu Foundation operates with a mix of paid staff and volunteers. Ruam Katanyu is one of the two big foundations (the other is Poh Teck Tung) acting as umbrella organizations for the city's volunteer ambulance squads, most of which are supervised by one of the two. The religious institution of Ruam Katanyu was founded half a century ago in the Slaughterhouse area of Klong Toey, one of Bangkok's largest slums. As a boy, its founder helped carry dead bodies to the morgue when the "iron rain" fell from warplanes during the height of World War II.

It wasn't until the late 1980s

that the state took on more responsibility in providing emergency medical services. State hospitals added emergency rooms, first-responder dispatch centers were established, volunteers were provided more training, financial support was given to providers of emergency services, and so on. But it's still nowhere near enough. Bangkok continues to rely on the loosely organized, ragtag squadrons of Ruam Katanyu and Poh Teck Tung. Only a decade ago these volunteers had virtually no formal training at all – they learned how to save lives on the job.

More developed parts of the world also have charitable ambulance services, but their funding is provided far more formally through



official channels. Bangkok’s volunteers are entirely self-funded. Lek, 34, says that over the past ten years he has spent more than two million baht (\$60,000 USD) on vehicle modifications, fuel and medical equipment. Most of the equipment is American-made, he notes, so it doesn’t come cheap.

The volunteers have to make their own sacrifices. Lek’s first ambulance, a roofed pick-up truck, was stolen during the height of mega-flood in 2011 when he was away delivering emergency rations in the inundated

provinces of Chainat and Ang Thong, just above Bangkok. He took out a five-year loan to buy and modify a second vehicle, a van he turned into a new ambulance.

During the day, Lek works as a clerk in a garment shop in Chinatown. His boss knows about his night job, and is understanding because the work is clearly a

personal sacrifice for the good of the city. But his devotion to the volunteer ambulance corps has taken its toll on Lek’s relationships. Girlfriends have left him because of his commitment to the job. He routinely sleeps on the stretcher in the back of his van.



Although Tui is known for his too-fast-too-furious driving skills, the ride is quite smooth. For the patient, good care starts with a smooth ride. A rough one may exacerbate the injury.

We are the first to get to the scene. But by the time we arrive, the injured have already picked themselves up and left. According

B standing in front of the ambulance Lek created out of a van he bought. B’s brother is in the driver’s seat.

Witchaya Pruecksamars

to the taxi driver, who is throwing a tantrum, the motorcycle lost balance when it broadsided the taxi and its riders hit the ground, their flesh grimly torn across the coarse tarmac for a

few meters. Although injured, the motorcyclist and his passenger did not want (or were not able) to compensate the taxi driver for the rear-view mirror they broke off his car. So they fled.

Had the injuries been more severe the volunteers would have needed to assess the situation and make a judgment call as to how to go about the treatment. Their usual method is to “scoop and run” to the hospital.

## “For the patient, good care starts with a smooth ride.”

But they would be held accountable if the patient was mishandled and suffered a permanent injury or disability. (This is part of the reason Bangkok’s police force won’t lay a finger on the injured). And so, if the case is more than they can

handle or if they don’t have the right equipment – for instance, a defibrillator or a lower-body immobilization device — they can use their handheld radio to issue a Code 7, a request for backup.

Effectively, all basic-level emergencies in Bangkok are handled by the volunteer ambulance squads, which form a layer of preliminary “screening” for the formal system, freeing up



A 16-foot-long snake appears at a busy junction. Rescue workers try to capture it before it’s run over, but it manages to slip back down into Bangkok’s subterranean network first.

Witchaya Pruecksamars



coin needed to make an emergency call from a phone booth. The formal fleets are too inflexible and stretched too thin for such distractions, so informally operated ambulances are an indispensable filter for such cases.

Bangkok has 48 hospitals that can send out ambulances, but to monitor and provide coverage throughout the whole city 24/7 requires more than that. That’s

where the volunteers come in. By congregating at a few hundred staging points — often at police stations, patrol stations, in soi (narrow streets) and alleyways, under flyovers, and anywhere else they can park their vehicles, they form a nimbler, more closely knit network that allows them to respond faster than either the police or a hospital to emergency situations.

B getting ready while the ambulance races to the scene of a Code 40 – a traffic accident.



Witchaya Prueckamars

These volunteers are much more experienced than they look. Nong has been volunteering since he was fifteen. At the [horrific fire at the Santika nightclub](#) that killed 59 New Year’s Eve revelers in 2009, he was there tending to the injured and calming relatives of the dead. B is Nong’s partner. Both of them dropped out of school, but they are financially independent. By day, Nong works at a printing shop and B takes care of an internet game shop.

Then there’s M, B’s identical twin, who rides in Lek’s ambulance as a partner. Whenever Lek needs a nap, M continues listening to the radio scanners. As a driver, Lek needs to rest more than the other volunteers. There’s also Pop, a news cameraman by day whose girlfriend usually tags along on his night shift to make sure that he’s really going out volunteering and not clubbing.

These guys all work under the auspices of the Ruam Katanyu Foundation, their practices and behaviors supervised by their seniors and peers, whom often share a thicker-than-blood bond that keeps them cohesive.

Thousands of volunteers nationwide have formally registered with the National Institute for Emergency Medicine (established in 2008), but there are tens of thousands more who have not. People like Nong, B, M,

Lek and Pop – guys who regularly put in 40 to 60 hours of work every week — are not registered, because to do so they would need to be officially endorsed by their foundation. But the big foundations like Ruam Katanyu won’t do that, because they have a “slot” system whereby someone who has already been endorsed needs to quit first to make room for newcomers. Which is to say, in Bangkok, your ambulance driver’s link to the formal medical system may be nearly nonexistent.

Why do they do it? Most of them would say right out that it “comes from the heart,” but I’m not satisfied with that answer.

“The feeling of having saved someone’s life is priceless,” a mother of two told the [Bangkok Post](#), recalling an occasion when she and her teammates took turns administering CPR to a young man until he came back to life.

“They get restless whenever they have free time,” says Lt. Jomdej, who is now pursuing a PhD in criminology. He implies that the volunteers would rather be out in the field than at home watching TV, fighting mosquitoes and boredom while tending to their fellow neighbors in distress. “It’s like an addiction – an addiction to do good.” For the volunteers, there’s no rest.



# The D.I.Y. Disaster Plan

## How Informal Networks Battled Bangkok's Worst Flood

**Dustin Roasa**

**Photography by Giorgio Taraschi**

When the water started rising in October 2011, the ground snapped and squeaked as it broke into pieces. Bricks shattered, floor tiles cracked and water rushed up through the fissures. The deluge blindsided the 150 families living here, in a cluster of villages known as Kittiyarak nestled in Thailand's Sai Noi district in Bangkok's northwest suburbs. By the time the devastating flood receded some three months later, it would be on record as the worst natural disaster in modern Thai history.

"No one expected it to be this bad," says Fongpol Konpruek, a 52-year-old former farmer from northern Thailand who moved to Sai Noi 16 years ago. "We were the first ones wet and the last ones dry." Konpruek remembers the overwhelming confusion of those early days. "The water came from everywhere. It came slow, but it also came fast. I don't know any other way to explain it." Rising 20 to 30 centimeters per day until reaching a height of 1.5 meters, the debris-clogged tide submerged streets, sidewalks, parking lots and the ground floor of every building in the area.

What happened next says a lot about the power of social networks and informal systems in moments of urban crisis. Left with little official help, residents here—along with hundreds of thousands of people in other flood-struck parts of Bangkok—sprang into action. They quickly improvised a series of informal networks, and repurposed existing ones, to perform the vital tasks normally carried out by the government in emergencies. People with no training and few resources built barriers and monitored flood levels, delivered food and drinking water, evacuated residents trapped in their homes, provided medical services to the sick and injured, and policed their neighborhoods for looters. And when the water receded, these networks shifted focus and led a localized cleanup and rebuilding effort that helped the city rebound.

As cities around the world grapple with rising sea levels and strengthening storms, governments are responding with an array of infrastructural





solutions. Since Hurricane Sandy, New York has increased the minimum elevation required for new and reconstructed buildings in flood-prone areas, and is raising subway entrances and ventilation grates off the ground. San Francisco is redesigning its water and sewage treatment system to the tune of \$40 million to prevent rising sea waters from entering the pipes during storm surges. The Netherlands—nearly 60 percent of which is prone to flooding—is reimagining its entire coastal protection system, one of the most elaborate in the world, by allocating at least a billion euros annually to extend storm-surge barriers, relocate tidal channels, nourish beaches and increase the flood-protection levels of diked areas “by a factor of 10.” And for every mega-project like these, there are smaller, micro-targeted ones: The modest but growing Vietnamese city of Quy Nhon, for example, is spending \$550,000 to restore 150 hectares of mangrove forests, helping to protect 14,000 households along its coast from strengthening monsoons.

But there’s also a growing awareness that combating disasters with hard infrastructure alone ignores half the equation. Perhaps just as important is a city’s social infrastructure. Recent research suggests that informal networks are critical to dealing with calamity and that areas with strong social cohesion fare better than areas where such networks are weak.

Kritsada Rotcharatch shows a photo of his inundated neighborhood in Sai Noi.

Bangkok isn’t the only place recognizing this. San Francisco’s [Empowered Communities Program](#) is working with local neighborhoods to increase their resilience in advance of disasters. The initiative supports communities as they develop action plans, but also generates higher levels of social capital among key stakeholders that can be invaluable during traumatic events. Participating groups include Neighborhood Emergency Response Teams (NERTs) and merchant associations. The city has even created a role-playing game called [Resilientville](#) that helps communities test and streamline their informal emergency response capabilities.

One of the most comprehensive efforts currently underway is in Wellington, New Zealand, where the largest unit of that city’s emergency management office is the Community Resilience Team (CRT). Dedicated solely to equipping and empowering informal networks to respond when disaster strikes, the CRT trains “Community-Driven Emergency Management” (CDEM) volunteers in how to promote preparedness among their own networks, as well as to respond as a community or plug into the official government response. Community response plans are facilitated by the CRT to guide planning at the local level to coordinate activities and manage resources like food and fuel. “Our whole model is getting normal people involved,” says Dan Neely, senior adviser for emergency preparedness at the Wellington Emergency Management Office. “People who are capable in their daily lives will be capable during an event. We’re trying to get to those people now... so that when a large-scale event happens, John Doe can tap into the wider community response plan.”

Wellington sent some of their CDEM volunteers to Christchurch when that city was devastated by an earthquake in 2011. But Neely emphasizes that you can’t just parachute in an informal response. “Part of this is building social capital,” he says. “We’re working to increase connectedness. Strong communities have better outcomes during a response.”

For evidence of this, look to Chicago, where informal networks played a major role in determining survival rates when a five-day heat wave killed 733 people in 1995. As Eric Klinenberg recently [reported](#) in *The New Yorker*, the neighborhoods that lost the fewest lives during that event weren’t necessarily the richest, but rather the ones that had especially strong social ties. His book [Heat Wave](#) documents the surprisingly high survival rate in the working-



class Latino neighborhood of Little Village: “The social environment of Little Village protected not only the area’s Latino population, but the culturally or linguistically isolated white elderly, who were at high risk of death as well.” He points to the neighborhood’s “social contact, collective life and public engagement” as factors that “foster tight social networks among families and neighbors.” When crisis struck, those networks responded almost instinctually.

Such informal networks were critical lifelines for many in Bangkok in 2011, and as storms intensify and sea levels rise, they’ll only become that much more crucial. Cities everywhere are grasping the importance of such networks, but in many ways Bangkok has a head start—it’s a place where informality already infuses many aspects of everyday life. “The government is inefficient and corrupt,” says Bangkok-based engineering professor Visit Hirankitti, who is working on methods to enhance the city’s informal disaster response. But what Bangkok lacks in bureaucratic competence it makes up for in people-powered strength.

Ideally, a combination of capable government and robust informal networks, working in tandem, could provide the bulwark that cities will need in the age of climate change. This will require not only social cohesion, but a willingness on the part of governments to help equip communities for self-reliance and develop disaster plans that allow for a citizen-led response. There are signs that this is slowly occurring—from New York to Bangkok, recent events have forced cities to let informal networks react to disasters with relative autonomy. Whether they embrace a model in which private citizens and government agencies work in partnership could define their resilience as the coming storms arrive.

**Saving Sai Noi**

In Bangkok, informal networks are not only strong, they’re omnipresent. They have their roots in rural society and are intricately interwoven with the social fabric, even in urban areas. The greater metropolitan area has grown rapidly in the last several decades, doubling in size since 1980. In search of economic opportunities, migrants from the countryside have driven much of that growth. Despite the speed of this population expansion—or perhaps because of it—its residents have maintained strong social bonds. Such robust informal networks are also the product of a population that expects little of



its government, aside from two revered institutions, the monarchy and the military.

Those networks attained new importance in late 2011, after Tropical Storm Nock-ten had made its way overland from Vietnam to Thailand in July. Over a period of weeks, rain from the storm, combined with heavy seasonal monsoons, overwhelmed the city’s dams. The Grand Palace was deluged, and Don Mueang Airport shut down after water flooded its runways. Panic gripped the city as the government declared a five-day emergency holiday. When all was said and done, 815 people were dead, 14 million were affected and over \$45 billion in damage was left in the catastrophe’s wake, making it the fourth-most expensive natural disaster ever.

But in the days before the flood arrived, official channels of communication were strangely sanguine. The government urged Bangkok residents to stay calm, insisting there would be no emergency. As late as October 13, the

A child waits in the shade while workers harvest nearby in Sai Noi. These fields were inundated during the flood in 2011.



Bangkok Post [quoted](#) the city’s governor, MR Sukhumbhand Paribatra, saying: “Right now, everything is under control. If we can’t control it, we will let people know straight away.” And even as the news media reported on the gigantic rain-fed pool growing ominously to the city’s north, they assured Bangkok’s residents that the water would never reach them.

Soon, however, dramatic images of the destruction of Southeast Asia’s second-largest economic powerhouse were swirling around the globe. But hardly anyone was looking at Sai Noi—not the media, and certainly not the government, which proved overwhelmed, unprepared and impotent in the face of a worst-case scenario. By late October 2011, the villages of Sai Noi were isolated and in dire straits.

A little over a year after the flood had receded, I hopped in a taxi one weekday morning and made the 45-minute drive from the gleaming shopping malls and high-rises of Bangkok’s central districts to the district of Sai Noi. I wanted to speak to residents there about how they had dealt with the flood, and how they’ll respond to the next big one, which nearly everyone is expecting someday soon.



Vichain Kongsab, the elected chief of his village in Sai Noi. He and the local residents’ committee quickly improvised a plan when it became clear the flood would reach their area.

Sai Noi is where booming New Bangkok collides with the rural customs and lagging economic growth of Old Thailand. In feel, it is neither urban nor rural. Instead, it’s a mishmash of the two, with rice fields and winding village lanes abutting the strip malls and multi-million-dollar commuter villas of Bangkok’s ever-expanding urban sprawl. It was areas like these, on the city’s north side, that were hit hardest by the flood and where the citizen networks were strongest. In part, they bore the brunt for geographic reasons, but also because the authorities decided to sacrifice them, releasing water into suburban areas in order to staunch the flooding in central Bangkok.

Surprisingly, there is little bitterness about this among the residents; their attitude is more like resigned acceptance. “It’s true that we were sacrificed, but not as badly as other areas,” says Vichain Kongsab, an affable man of 75 whose energy and trim build make him appear 20 years younger. “And anyway, what can you do? We had to suck it up.”

Vichain was at the center of Sai Noi’s informal flood-relief network. As the phu yai baan—which translates roughly as “village chief,” an elected, semi-official advisor found in nearly every community this size in Thailand—the people looked to him for direction. When it became obvious that the floodwaters would reach them, Vichain quickly called a meeting of the local residents’ committee, a nongovernmental body of 15 elders, to create an action plan for the community’s response.

Through consensus, the committee members decided how best to use the two resources the government had provided: Sandbags and a large water pump. “It was all very informal,” says Vichain. They organized residents into work crews—men shoveled sand and women carried the sandbags—and collected money from community members to buy a second water pump. The hope was, at least in these early stages, that they could stop the water from entering the villages. As it surged in, however, their defenses were overwhelmed. “We did our best,” says Vichain, “but it just didn’t work.”

Undeterred by this initial setback, the community found its stride as the situation worsened. Using a loudspeaker mounted on an electricity pole, Vichain and the residents’ committee organized a distribution network for food and water that was flowing into the area courtesy of a city-wide volunteer network formed by the television station Channel 3. Then, with



the floodwater rising rapidly, they set into motion an orderly evacuation of residents. They selected six volunteers who would stay behind to monitor the situation and police the area for looters. All the while, this crew of volunteers was in touch with officials at the local sub-district government office by cell phone, to whom they provided updates, as well as the military, which was intermittently delivering aid to Sai Noi.

Kritsada Rotcharatch, a brash construction foreman who favors t-shirts with the sleeves cut off and carries a cell phone that rings constantly, was one of the six who volunteered to stay behind. He moved to the second floor of his house (the ground floor was underwater) where he kept an eye on property for his evacuated neighbors, who checked in regularly by phone. Kritsada armed himself with a gun for confrontations with looters. “There were no police. My role was to protect the neighborhood,” he says. I asked if he was prepared to use it. “Yes. And I wouldn’t have aimed for the legs,” he chuckles. Kritsada maintained a running list of who was in the community at all times and relayed the information about what he saw to the sub-district office. During this period, he and the five other volunteers were the sole authority governing this area of Sai Noi.

By the end of December, the floodwaters had receded from area. Residents returned and turned their attention to recovery. Cleanup crews made up of five households each collected debris from public areas and worked to put their homes back together. Then, through a system of barter and labor exchange—money was scarce due to the disruption of business caused by the flood—community members tackled larger jobs like repairing their houses. The villages were back up and running in less than a week. In the three months since the water had appeared, not a single member of the community had died or was seriously hurt. Against all odds, law and order had prevailed, and life returned, more or less, to the way it was before. With minimal help from the government, the neighborhood had survived the worst disaster ever to hit Thailand.

Near the end of a long conversation with Vichain and Kritsada, the dark stains of the high-water mark still clearly visible above us on a nearby wall, the discussion shifts to other cities that have been struck by natural disasters in recent years. I bring up Hurricanes Sandy and Katrina, and the hostility that residents of New Orleans and New York felt toward their own governments in



the aftermath of those events. I ask them if they felt something similar. “No,” Vichain says without hesitation. “The government already had their hands full managing the water as it moved down from the north. They can’t take care of everyone.”

Cooperation came naturally to the residents of Sai Noi, in this case partly because of another shared identity: Their background as migrants from rural northern Thailand. In these regions, in particular the hardscrabble Isan area in the northeast, flooding is common and the people know how to deal with it. The residents of Sai Noi brought that knowledge with them to Bangkok. “I experienced my first flood when I was four years old,” Vichain says. “People in the countryside are better prepared. We had boats and built our houses on stilts.”

But there was more to it than that. Although they hadn’t come from the same province and didn’t know each other when they arrived, the residents shared a cultural sensibility that, when they found themselves in unfamiliar urban surroundings, brought them together as a community. “It’s very normal for

As one of the leaders of his village’s informal response network, Kritsada Rotcharatch was one of six people who stayed behind during the flood.



us to cooperate like this. It’s instinct,” says Kritsada, echoing a sentiment I heard from a range of Thais involved in relief networks, including those who’ve spent their entire lives in cities. Sai Noi’s flood network now lies dormant. But when the next disaster comes, the community will re-establish it quickly. “Next time,” Vichain says, “we will be ready.”

Next time may come sooner than the last time. Researchers at MIT and Princeton University have found that the types of superstorms that used to make landfall once a century could now arrive every three to 20 years, and that so-called “500-year floods” might arrive as often as every 25 years, according to findings published in Nature Climate Change. “The volatility of large events of recent years has really grabbed hold of people, whether it’s Bangkok or Japan or Hurricane Sandy,” says Robert J. Sampson, a professor of social sciences at Harvard. “These things have made it clear that we have to think anew about how to prepare for disaster.” Sampson’s work, for instance, involves a method of disaster planning called ecometrics: “Taking the temperature of communities so you know which ones are vulnerable. It allows one to identify breaches of social defenses, not just seawalls,” he says. Like much of the thinking around social infrastructure and disaster preparedness, this is relatively new territory. But Sampson sees it catching on quickly. “There’s been a sea change,” he says. “It’s now on the radar.”

The Power of Low Expectations

Part of the reason cities like Bangkok and Wellington seem to be catching on to the role of informal social networks more quickly is simply because they have to. “New Zealanders are a scrappier people,” says Dan Neely from the Wellington Emergency Management Office. “We don’t have the level of resources that the U.S. has, so we’re forced to rely on our communities to a degree.”

Vichain echoes this sentiment. “If you expect the government to help you all of the time, you have to pay more in taxes, and Thais aren’t willing to do that,” he said. (This is a city where 150 formal ambulances attempt to serve 12 million residents, after all). Low expectations about government involvement meant that the people of Sai Noi were under no illusions about the level of assistance they would receive. And even if more outside help were available, they told me, it would have been no substitute for the on-the-ground expertise that residents were able to provide as events unfolded.

“Based on our experience with the flood, it would work better for us to propose something to the government rather than waiting for them to help us,” says Vichain. “If we want something, we need to stick together and figure it out ourselves.” In turn, the government recognized its limitations and was prepared to cede authority to local networks.

This last point is salient for discussions about how to empower such informal networks in Western cities, where governments may be less accustomed to letting local actors take the reins. But maybe Western cities are more willing to cede control than one might expect—especially when overwhelmed by crisis. After Hurricane Sandy, when New York was consumed with major tasks like restoring power and subway service, one of the hardest hit neighborhoods, the Red Hook section of Brooklyn, also benefited from one of the most impressive informal responses. A relatively unknown community nonprofit called the Red Hook Initiative instantly transformed, in the words of its executive director, “from a small youth development center into a major hub for the disaster relief effort here.”

With an operation that was thoroughly informal yet, by all accounts, highly efficient and essential, the initiative turned its tiny headquarters into a makeshift storm-recovery center. It provided hot food, cell phone charging (it was one of very few local buildings to keep its power) and perhaps most important, a central command for much of the neighborhood’s flood-relief efforts. In the weeks that followed, the media marveled at the idea that such a rag-tag group could respond so effectively without being led by the government’s hand.

But they needn’t have been so surprised. Even when the sun shines, Red Hook is an unusually isolated neighborhood. It sits on a peninsula, untouched by the subway, and its denizens proudly consider themselves a city apart. Its remoteness seems to foster a shared identity, which felt palpable when residents later talked about organizing their own response in the wake of the storm. “I think many in the Red Hook community feel geographically and psychologically disconnected from the city,” an aide to New York City Speaker Christine Quinn told Capital New York, adding that confronting Hurricane Sandy’s wrath themselves, without top-down intervention, “may have been more empowering for the people of Red Hook than being rescued by a federal agency.”





## A Thousand Little Sensors

In Bangkok, how to respond to the next flood is a question that has consumed Visit Hirankitti for the past year and a half. Visit is a professor of engineering at King Mongkut's Institute of Technology in Ladkrabang, a district in eastern Bangkok that is home to high-tech manufacturing and the crown jewel of the city's economic ascendance, glittering Suvarnabhumi International Airport. Until recently, though, Ladkrabang served as a catchment for flood waters, a mostly empty plain for the authorities to divert water into during heavy rains.

Visit was in the midst of exams when the flood arrived. Given the area's history as a catchment, he expected things to get bad quickly. "But the water stopped rising at just above my ankles. This surprised me. I thought it would be much worse," he says. As it turned out, with Ladkrabang's recent development as a key economic zone—Japanese heavyweights Honda and Isuzu have factories here, and the airport is the hub of the country's \$30 billion tourism industry—the authorities were desperate to keep the area dry and functioning.

A villager tending a field in Sai Noi.

Throughout final exams, Visit was able to come to his office every day. Some of his students, though, were commuting in from harder-hit areas and decided to temporarily relocate their living quarters to the engineering lab, where they had a dry place to sleep and access to food and clean drinking water. Visit and his students watched with alarm as events unfolded across the city. "I became very frustrated. As an engineer, I wanted to do something and not just sit there and watch it happen on TV. I kept thinking, 'What can I do for the country?'" When he finished grading exams, he recruited several students to stay on through winter break and assist him in developing a system that he hoped would help Thailand cope with future floods.

As far as Visit could tell, the key problem had been a lack of information. The authorities never really had a handle on where the water was and, as a result, couldn't make effective decisions on how to manage it. In addition, Thai citizens, left in the dark, were caught scrambling when the flood arrived. "What I realized was that, as an engineer, I could provide data," he says. Visit specializes in developing systems that synthesize complex information. His past projects include the country's first electronic taxi dispatch system and a detailed GIS map of Thailand's electricity grid. Visit realized that the country's water management authorities, who were relying on antiquated sensors installed on a few dozen flood gates scattered around the country, needed something similar to respond effectively.

Perhaps counterintuitively, his first decision was to work outside the government, which he believes suffers from a toxic blend of incompetence and corruption. "I didn't believe in going that route," he says. Instead, he would rely on the strength of citizen involvement, which had proven to be so decisive in responding to the flood. Visit and his students set out to create a nationwide flood-monitoring system that would rely on thousands of volunteers, creating a vast, cheap, technologically advanced network that could provide up-to-date information to anyone who wanted it, including the authorities. After producing a prototype, he eventually decided to apply for government grants to fund further development.

On a recent afternoon in his lab, which was strewn with computers, tangles of cable and the fast-food-wrapper detritus indicative of late-night research, Visit showed me the version that he believed would be ready next year. The technology was simple: a PVC pipe housing a piece of twine and a



small float, a circuit board to collect measurements and a Bluetooth device to transmit data.

Once he’s secured patents for the system, Visit hopes to set up over 1,000 of these sensors around the country. He estimates that they will cost about \$30 USD apiece to produce, and he’s currently assessing various funding options, including donations and corporate sponsorship. The sensors will send data to thousands of volunteers who have downloaded a free iPhone app developed by one of Visit’s students. A central server will then collect the data from the phones and generate a three-dimensional map of water levels throughout the country, to be displayed on a public website. When operational, the system will be the largest flood-related network in Thailand. “With the increase in global warming and natural disasters, I have no doubt that another big flood is coming. The question is, what can we do about it? We want to see if people can help people to sort out the problem.”

Since the advent of the smartphone, developers around the world have launched apps designed to help people in crises. Organizations such as the [American Red Cross](#) and the [U.S. Federal Emergency Management Agency](#) have created apps designed for emergencies, while privately developed software like BuddyGuard allows users to send out GPS-enabled distress signals. Meanwhile, city governments in urban areas such as Jacksonville, Florida, and Auckland, New Zealand, have created apps that provide real-time emergency information to residents. But Visit’s system is different in that it harnesses the power of users to generate information.

Given the strength of informal networks in Thailand, there is every reason for Visit to feel confident his system will work. Compared to the monumental tasks undertaken by volunteers to save their communities, installing an iPhone app and traveling to within range of a Bluetooth sensor would seem almost trivial. Yet relying entirely on unofficial networks is no solution to the problem, either. Volunteers working together are capable of powerful things, but there are limits to what they can achieve, especially when the authorities and official services underperform.

I was reminded of this during a morning spent touring the Klong Samwa area with Samai Charoenchang, a former government official. Like Sai Noi in the northwest, Klong Samwa, located on the city’s northeast side, had been

submerged in up to two meters of water. Samai drove me around the area in his minivan, introducing me to dozens of people who had joined relief networks. I met a woman who put her lucrative home-based TV production studio on hold for two months to set up a temporary kitchen in her front yard. When running at full capacity with 30 volunteer cooks, she churned out 3,000 free meals per day. I met a man in his seventies who helped deliver that food with members of his local Buddhist meditation center, which had transformed itself into an emergency distribution network. There were many others, and all said that while their networks were currently dormant—there was no flood to respond to—they could be brought back to life within hours.

But there was another, more sinister side to the networks. We stopped at a floodgate that regulates water on Klong Phraya Suren, a canal that runs north to south through Klong Samwa. In early November, at the height of the flood, the gate divided the area into two vastly different worlds. The area on the north side of the gate was completely flooded, while the southern side was dry. The city government, which controlled the gate, had decided to stop the water from flowing south toward central Bangkok, thus flooding the north. Enraged, residents on the northern side organized themselves into a small fighting force and attempted to seize the gate. The southern side responded in kind, and the two met in violent, pitched battles that lasted for two weeks. Armed men on both sides fired shots and fought hand-to-hand with one another before the police arrived and restored order (no one died, though there were plenty of injuries). “By the end, both sides wanted the other to suffer,” says Samai.

Regardless of these conflicts, Thais retain faith in their ability to respond to crises informally. Suporn Rujapan, a mother of grown children living on the city’s north side, stayed in her home for the entire duration of the



Engineering professor Visit Hirankitti has been developing a system through which citizens armed with iPhone apps would collect data during floods.





flood. After initially finding herself a victim of the disaster, she quickly grew into a role as front-line leader of her community’s relief efforts, directing government and volunteer resources and becoming a minor media celebrity in the process. During a conversation in the kitchen of her modest concrete shop house, she echoes the thoughts of many Thais I had spoken with. “During the flood, we found that it was better to help ourselves than to rely on the government,” she says. Although she worries that her children’s generation has lost the sense of collective responsibility she feels so deeply, Suporn believes that the country will continue to rely on informal means to respond to future crises. “We’re Thais,” she says simply. “It’s in our nature to help each other.”

**The Story of a Boat**

“We have to go! We have to go!” Chetsarish Smithnukulkit says, his eyes wide under the silver bangs bouncing on his forehead. Chetsarish was standing in the offices of VS Service, a Thai production company that assists Hollywood film crews with local shoots, recounting the moment when he knew he would

The view from the Klong Phraya Suren water gate.

get involved in the flood. He didn’t have to take action; the worst of the water was dozens of kilometers away to the north. But Chetsarish’s calculus was simple: “We have the boat. We have the people. We have everything we need to help.”

The boat. Whereas what happened in Sai Noi was hyper-local, a small neighborhood helping itself when no one else could, a story repeated thousands of times across Bangkok, Chetsarish’s experience was different. His is a story of one man’s initiative, and how he marshaled not just his own resources, but also those of large volunteer networks and the government, to help an estimated 2,500 people. But first and foremost, this is the story of a boat.

“I bought it five or six years ago from a film crew we worked with. They used it to shoot scenes in Rambo 4,” says Chetsarish. “I thought I could use it for another shoot. It didn’t have a motor, so we had to push it around with a bamboo pole.” Essentially a massive floating platform, the barge could hold nearly 50 people and hundreds of pounds of cargo. As the floodwater bore down on Bangkok, he got a call one day from the governor of Ayutthaya, a province north of the city. “He asked us to help. He said they had no food, no water, and that the people were in danger. He told me where to go,” Chetsarish says.

Chetsarish rounded up a crew of young production specialists from his company and student volunteers from a nearby university. But the journey would take hours, even days, if the crew were to push their way, gondola-style, all the way up to Ayutthaya. Chetsarish got on the phone again, this time reaching his friend Major General Adis Ngamchitsuksri, a high-ranking police official. “He said he needed a motor for his boat. I flew one in by seaplane the next day,” Adis says.

For the next two months, working 14-hour days, Chetsarish and his crew traversed the flood-ravaged city in their barge, which played many roles: Floating hospital, search-and-rescue-ship, mobile power station and aid-delivery platform. In coordination with local sources—government, volunteer networks and trapped citizens—they went to places the authorities simply couldn’t reach. They carried a generator that allowed those left behind to charge their cell phones and reestablish contact with the outside world. They









Chetsarish Smithnukulkrit and his crew with the boat that allowed them to aid people in a province north of Bangkok.

transported doctors who provided medical care to the injured. They became a floating morgue, removing several dead bodies.

They also had some close calls. Ten crewmembers, including Chetsarish, nearly died when they were electrocuted by a submerged power cable. And then there was their fear—perhaps irrational, in retrospect—of crocodiles, hundreds of which had reportedly escaped from illegal farms. “We heard rumors. We thought they might be true,” he says, laughing sheepishly now. But the danger mattered little in the face of the overwhelming gratitude they encountered from those they helped. “When we came into an area, everyone stood and applauded,” he says, rubbing his forearms, remembering the goose bumps.

I ask Chetsarish what lessons he took from the flood. He leans in, his voice lowering to a near-whisper. “I have to say something bad about Thai

politics.” The country’s two parties, in perpetual conflict, were not equipped to handle the crisis. “They look after themselves and not the people,” he says. “And besides, we’re ten times more efficient. The police had no way of helping people. That’s why they needed me.” On this last point, Major General Adis agrees. “We’re always ready to go to the public for help. We knew we couldn’t do this alone.” When the next flood comes, Adis will get on the phone and call his friend Chetsarish, the man with the boat. “The engine is working. I just checked it a couple of days ago,” Chetsarish says. “We’re ready to go.”



# Chennai, India





In the capital of India's most urbanized state, waste-pickers and tea vendors labor amongst the growing ranks of white-collar workers employed in call centers and back-office outsourcing. This diversity reflects a city in transition—as Chennai chases its ambitions to become a “global city,” its poorer residents are in danger of being shoved aside.







**Vendors in Chennai sometimes resist formalization efforts, as experience tells them more customers can be found on the streets.**





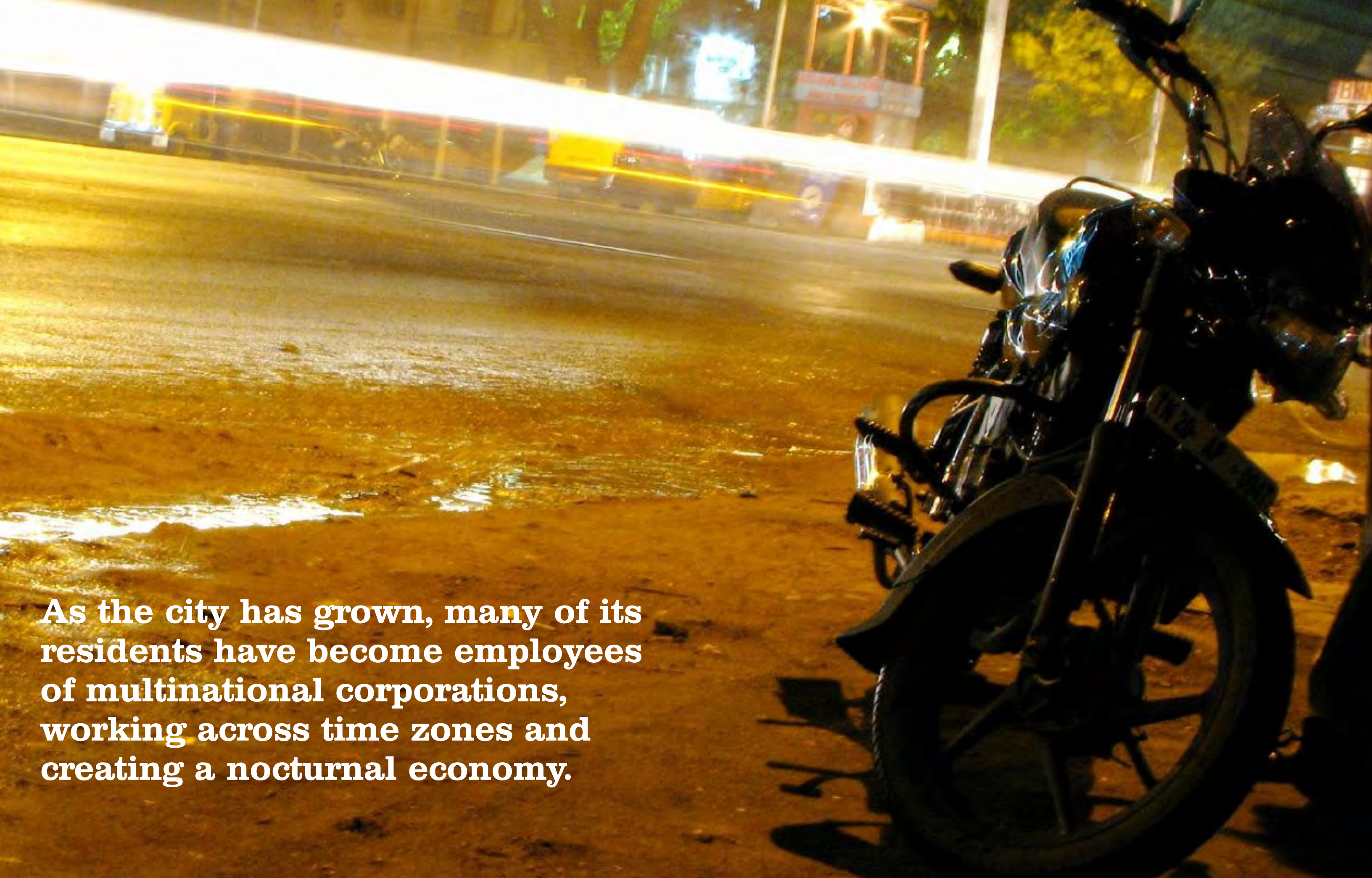




**The population and economy of Chennai has boomed in recent years, but it remains one of India's most traditional cities.**





A photograph of a motorcycle parked on a city street at night. The motorcycle is in the foreground, partially visible, with its headlight and front wheel prominent. The background shows a blurred city street with light trails from moving vehicles, suggesting a long exposure. The overall scene is illuminated by warm, yellowish streetlights.

**As the city has grown, many of its residents have become employees of multinational corporations, working across time zones and creating a nocturnal economy.**



# From Tea Vendors to Grocers, All-Night Office Shifts Spawn a Nocturnal Economy

Mili Sinha

It is well past midnight — the beginning of the work day for Periyasamy. His moped, weighted down with a large container of milk and hot water for making tea, is parked on the side of the road. “Not many office-goers, especially those working in the night shifts, have the office food courts open at this time,” he says, which makes his caffeinated product an in-demand item, and scarce to boot.

In the not-too-distant past, one typically spotted late-night street vendors like Periyasamy in railway stations, bus terminals and airports. They used to serve mainly the transporters, who transfer goods from one part of the city to another, as well as people traveling late at night from Chennai to Puducherry or other districts. Garbage collectors, road cleaners and cab drivers rounded out their customer base. But like many Indian cities, Chennai has become a place where night shifts are no longer only for the blue-collar class. Overnight

hours have become the norm, thanks to the many multinational corporations (MNCs) that must sync their clocks to time zones on the other side of the world.

As such, the needs of bleary-eyed night-shift cubicle drones have fueled a shadow sector to support them: the dusk-till-dawn informal service economy. From the busy L.B. Road in Adyar to the IT corridor on Rajiv Gandhi Salai, street vendors now begin to emerge around 9 p.m., and grocery shops extend their hours long past traditional closing times.

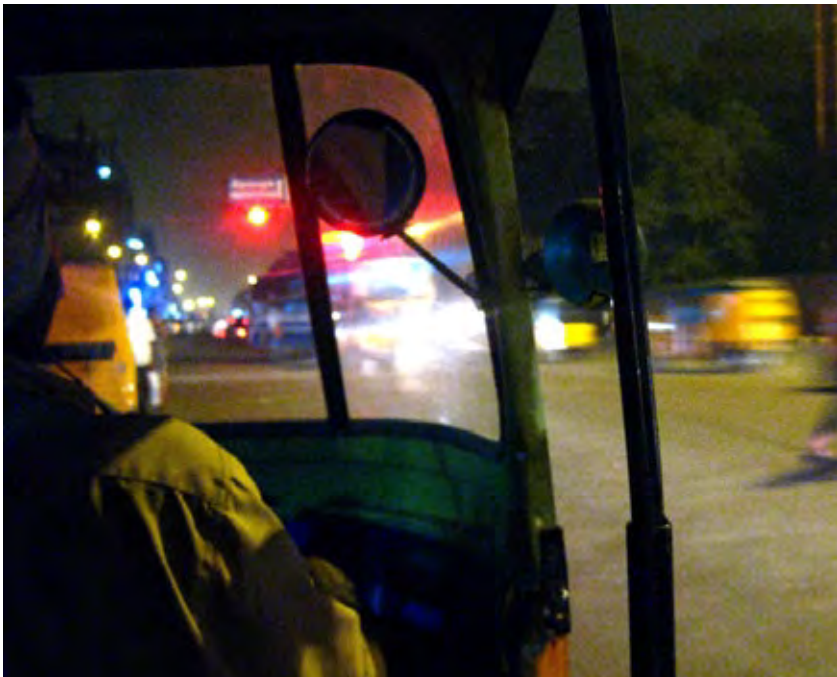
Periyasamy has been in this business for eight months and earns Rs8,000 to Rs10,000 (\$150 to \$187 USD) monthly. Prior to working as a street vendor, he was a daytime security guard and earning about Rs11,000 per month. Knowing that his new job as a vendor might mean a reduction in income, Periyasamy made the change anyway. His newly flexible schedule allows him to spend more time with his family while working at night. “I have two daughters studying in school. While my wife takes care of the household chores, I drop the children at school, bring them back and help in other outdoor works during the day,” he says. A vendor named Senthil says he was also lured into late-night vending a couple of months ago when he noticed the

rising number of people traveling through the city in the wee hours. “I leave my house by around 8:30 p.m. I usually stand near Madhya Kailash, as it is the point from which most state buses, heavy vehicles and airport cabs travel to their respective destinations,” he says. During the day, he notes, people have scores of shops to choose from, but at night there’s less competition. “I make close to Rs300 to Rs400 (\$5.50 to \$7.50 USD) each day. On busy days ... the sale is higher.”

Mobility is these vendors’ biggest advantage. Following the nightly rush like birds migrating with the seasons, they can maximize their profits in a compressed amount of time. “We do not have a regular joint,” says Periyasamy. “We might begin from one point every day, but we prefer to keep moving around the city to add to our sales.”

And for exhausted office workers, the vendors are a godsend. “You cannot sit in the office for ten hours at a stretch,” says Praveen Kumar, who works from 4 p.m. to 2 a.m. at a multinational corporation. “I and my group of colleagues come out post-12 to have a cup of coffee to refresh ourselves as well as give ourselves a kick to work the rest of the night.”

Little did Praveen know that when he graduated college he



would land himself a night-shift job. Though he had seen a few friends take night jobs, mostly at call centers, he assumed he would follow a more traditional path. But today, nine-to-five can no longer be called the traditional path for India’s professional class. “Earlier, the night-shift culture was popular mostly in the BPOs [business process outsourcing],” he says. “But now, as more companies expand their business abroad, their work timings cater to the offices abroad. We have two teams — one working for North America and the other for South America. Hence, my timings have to be according to the timings of the offices based there.”

Periyasamy and Praveen represent the symbiosis of Chennai’s two nocturnal classes and reflect the shifting trends in the city’s work-

Office employees and informal workers in Chennai increasingly rely on each other throughout the night.





# “Most of them have unearthly work hours.”

life norms. While Periyasamy’s entire family of four resides in a 500-square-foot room, Praveen stays in a three-bedroom rental with his parents, his wife and his sisters. (In India, living communally with one’s family is common).

Working nights does hold some advantages, Praveen feels. “While you get paid extra for working the night shifts, you also avoid the usual traffic chaos that one faces working from nine to five.”

The city’s nighttime economy has also added to the sales of small businesses. Many grocery shops or small department stores that used to shut down by 9 p.m. now keep their doors open till midnight.

“I have many working men and women coming to my shop to buy their regular stuff, especially milk,” says J Kumar, who runs a small grocery store in Perungudi, where most of the IT companies are located. “Most of them have

unearthly work hours. Some of them had requested if I could keep extending the timing of the shop by an hour or so – it would benefit them as well as me in my business. I decided to keep it open.”

Ruminating on the need to adapt to a fast-changing urban world, Kumar says, “From time to time, we have to change according to our surroundings. Gone are the days when there existed just a single shift: 9 a.m. to 5 p.m. Nowadays, people have become aggressive toward their work, and hence, evening shifts and night shifts have come into being.”

These changes will likely only accelerate. Many of India’s MNCs are growing significantly more profitable than domestically based companies, which will mean more expansion, more workers – and more night shifts. For his part, a security guard at the RMZ Business Millenia Park who I spoke to is just happy to see that he’s not the only one slogging through till sunup.

With multinational corporations syncing their clocks to the other side of the world, night shifts are becoming more common.

Ishan Manjrekar via Flickr Creative Commons







# As a Community’s Trawlers are Sent to Port, Its Bustling Fish Market Dries Out

Shalini Umachandran

“500! 500! 500!” With the flick of a wrist, the arch of an eyebrow, the price goes up. “600! 600! 600!” D Padma cackles, egging on the crowd. A finger is wagged, a handkerchief is waved and the bids go higher and higher, finally coming to a rest at Rs 800 (about \$15 USD) for a half-basket of anchovies. Just moments earlier, the fish had been pulled off a catamaran and dumped at Padma’s feet on the dirty sand here at Kasimedu fishing harbor. Now they’re gone.

The odor of dry, decaying fish never seems to lift in Kasimedu. It wafts along the sand, searing in the 38-degrees Celsius heat. It’s a quieter business day than usual, but even today, by 2:30 a.m. the harbor is alive with the first of the boats landing with the day’s catch. Melting ice, sections of sea creatures, scraps of net, rope and reed are strewn everywhere. Padma stands at the center of why

this chaos exists in the first place: the point of sale. She is one of the auctioneers who ensure that the boat owners get the highest price for their fish. The auctioneers are formidable women working in a hard-won position; many of them have advanced money to the boat owners to obtain auctioning rights for the catch. The owners often need the advances, since they put out to sea for 10 to 15 days at a stretch and have to stock up on fuel, food and supplies for the team of 10 men that goes out with the boat.

“Some of us also give long-term loans to women who regularly buy fish from the boat owners,” says Padma, whose fisherman husband died a few years ago. She’s not eligible for state government compensation, though she admits she’s tried every trick in the book to claim it. “The sea is my livelihood. Business is slow because it’s the trawlers that bring in the largest amounts of fish,” she says. “Now, only the catamarans are allowed to go out and fish.” The trawler ban is the reason business is slow today. On a typical morning, hundreds of catamarans are ferried in from the trawlers, piled with baskets of sardines, pomfret, seer fish, prawns, red snapper, mackerel and squid, which are sold to buyers from all over the south almost as soon as they land on shore. Gangs

of workers carry the baskets from the catamarans and dump them on the strip of sand that serves as the auctioneers’ podium.

But right now, Kasimedu’s trawlers are moored in the harbor, their crews killing time by repairing nets, playing cards and getting into fights while they wait out a 45-day government ban on deep-sea fishing. The ban on trawling, enforced by the fisheries department along the entire coast of Tamil Nadu since April 14, is to ensure that exploited species have time to breed – not only commercial species like sardines, seer fish and barracuda, but threatened species too, such as sea cucumber, sharks and turtles. There are 800 registered boats in Chennai and about 200 unregistered trawlers.

“All of us lose business during the 45-day ban,” says K Bharathi, president of the South Indian Fishermen’s Welfare Association. “This practice has been followed since 2001.” The Kasimedu fishing harbor was built in the mid 1970s in Royapuram, one of the oldest parts of the city. It sits on land belonging to the Chennai Port Trust and figures often in discussions in the State Assembly. But in reality, much of the activity here is informal, with auctions and business deals working on trust and following generations of accepted practices.



About 1,000 mechanized trawlers and 500 catamarans put out to sea during the fishing months and bring back around 150 tons of fish a day. The industry employs about 10,000 people directly. T

The building of the harbor turned Kasimedu into an industry town, where an entire family of five or more depends on fishing for its livelihood. “The men go out to sea, the women clean and sell the fish,” says Bharathi, sitting at a roadside tea shop near his house, a five-minute walk from the smelly, sandy strip of beach where Padma calls out her prices. “If they don’t save properly — which often happens since most of them earn per day — making ends meet during the

Boats parked bow to stern in Kasimedu fishing harbor.



ban period can be hard. The other problem is that many are not eligible for the state government compensation since they work on other people’s boats or are migrant laborers from Andhra Pradesh. So they take out loans or pawn other assets for high rates of interest.”

Fisheries department officials say the annual ban is critical to keeping fish stocks viable. “Research done over several years shows that this 45-day ban is helpful,” an official tells me. “Larvae and eggs are found on the sea bed and a ban on trawling helps. Most fishermen think the sea is vast and there is no need for regulation.” Count Bharathi as one of these skeptics. “The fisheries department has not

shared the research with us. We are not sure that the ban is necessary,” he says. “We feel it might be more useful from October to December when the currents move toward the shore.” The state government pays out Rs 2,000 (\$37 USD) per family during the ban, but fishermen say the money does not come immediately. “It is usually released after the ban is lifted,” says Bharathi.

The ban hits everyone involved in the fishing industry, including the auctioneers. Some of them get Rs 30 for every Rs 100 of fish that they sell, and all of them take a share of the fish from every basket they auction, getting a cut from both the boat owner and the



During the ban, trawlers are painted and repaired.

BA Raju

purchaser. Everything works on a commission basis: The auctioneers get a cut, the export agents get a percentage, boat workers get 20 percent of the earnings from the catch and the transporters get 10 percent. Fish from Kasimedu is shipped out to markets in and around Chennai, as well as to Vandavasi, Cuddalore and Kanchipuram. “

We even send fish to Kerala from where it is exported to Europe, Iran and Russia,” says E Sekar of ESK Seafoods. Stingrays, especially, are prized in markets in Europe and are exported through the neighboring state of Kerala, an overnight journey by road.

“Every day, transactions worth Rs 9 crore to Rs 12 crore (about \$1.6 to \$2.2 million USD) take place,” says M D Dayalan of the Indhiya Meenavar Sangam. “Wholesale, retail and export buying takes place here.” Just about the only people not flustered by the ban are the carpenters. “We build new boats and repair the old ones during the ban period,” one tells me. It takes a team of about 10 carpenters four to five months to build a boat. “We formed a union only after the 2004 tsunami because our tools — and our livelihood — were washed away. But since we don’t live here permanently, it’s hard

to get anything concrete done,” says a carpenter named K Stephen. Most of them are from Cuddalore or Kerala and go home for only a few months in the year. They travel along the country’s coast, following the contract job.

For another few weeks, the carpenters will be swimming in work. For the rest of the industry, the period of drying out will end on May 29.



**With the second-longest beach in the world, Chennai's informal workers find a steady source of jobs on the ocean.**





# Waving or Drowning?

## The Battle for Chennai's Vanishing Waterways

**Kavitha Rajagopalan**

**Photography by Amar Ramesh**

Morning in Chennai. The pale blue sky blushes deep pink before it is pierced by a bronze sun. Amid the ever more frantic cries of the koyal, the clanging bells calling the faithful to prayer and the nasal bleats of taxi horns is the sound of water—a storefront owner rinses the sidewalk in front of his vestibule, a street sweeper bends low and brushes the wet street with her broom of dried grasses, a woman fills up her plastic bucket from a pump at the entrance to her slum, a taxi driver gargles and spits in an arc out of his vehicle, a buxom lady of a fine house sloshes bathwater all over her marble bathroom floor, a maid thwacks a wet sari against a stone slab in a courtyard, a man mutters his morning prayers before the altar in his high-rise flat, plunking a silver spoon into a brass vessel of holy water fragrant with fresh basil leaves.

To hear all this splashing, one would never know that this city suffers chronic water shortages, but water has a special place in the lives and rituals of the people of Chennai, one of India's most traditional cities. Years ago, worshipers bathed in the Cooum River, one of four waterways running through the city's center. Today, rather than divine spirit, a noxious stench rises from its opaque, sluggish waters, pumped steadily with fifty years' worth of sewage and industrial effluents. The city's new evangelists – its urban planners and future-forward architects—promise another kind of salvation on its banks, the kind that will position the city to take a larger share of the technology and back-office support business that is transforming the country and will transform the city, in their minds, into a gleaming modern metropolis that may join the elite cadre of “global cities.” In the last five years, half a dozen major development projects have converged on the Cooum—a riverfront beautification initiative, waterfront real estate development, a high-speed elevated expressway, a cutting-edge subway and a waterways rehabilitation and waste-management effort. Proponents of a plan to “beautify” 1.1 kilometers of the river's waterfront



described it as a bid to transform the Cooum into an Indian Thames, with parks and a luxury retail-and-residential district. Of course, the riverbank is already alive with commerce and growing neighborhoods: The one-room storefronts, roadside food stands and single-story shacks of slum communities. All of the urban development projects on the Cooum are predicated on the mass eviction of the nearly 45,000 families that live in these slums.

This tension is present throughout Chennai today. Reclaiming the city’s waterways has become a priority, and the perceived key to achieving that goal is clearing the slums that exist along those waterways. Rather than something to sweep under the rug, these mass evictions are a pillar of the city’s urbanist vision—in 2008, the state government declared that Chennai would be slum-free by the end of 2013. For city leaders, this is a kill-two-birds solution: Rid Chennai of its slums while cleaning and redeveloping its famous water bodies. Approached thoughtfully and inclusively, waterway restoration could mean development and water management to benefit the entire city. Certainly, restoring waterways to health and providing people with safe, permanent alternatives to shacks are laudable goals.

At issue is how the city is carrying out these efforts. It’s far from certain whether the development the city is fostering is sustainable or merely cosmetic, and whether everyone will be allowed to participate in the new Chennai. In the name of “eco-restoration,” slum residents are being evicted from the banks of the Cooum and from public lands owned by the city’s water utility, and resettled far from job opportunities. In reality, they are simply making way for a global gentrifier’s work-playground—the very sort of real estate development that experts agree is the gravest culprit behind the city’s water scarcity. Even as more Chennai residents turn to private and off-the-books vendors for drinking water, Chennai is undertaking massive, costly infrastructure projects to bring in water—one more element of its bid to be a highly competitive world-class city. On the outer fringes of the city, where the water table has been pumped to exhaustion and where the former slum residents of the city center have been resettled, illegal, unregulated, often-contaminated water is the only game in town.

The implicit message in all of this seems to be that the city center belongs to the global economy, and that its rightful residents are people who work



in offices and drive cars and live in flats with their nuclear families. These are the people who are entitled to the new Chennai and its revitalized waterways, as well as its planned state-of-the-art water-delivery infrastructure. The other people—who work off-the-books, in homes or storefronts or in the open air, who live in informal settlements they built themselves, who buy and sell and make without permission or licenses—are being moved out to the periphery of the ever-expanding city. They are becoming, quite literally, outsiders. But in the endgame, the real exile here may be water.

### A Century Of Drying Out

In Theyagaraya Nagar, a densely populated neighborhood in the heart of Chennai, there is a street called Lakeview Road. It is one of many T. Nagar roads with the word “lake” in its name. But there is no lake to be seen from any of these roads. Today, all you’ll find in this neighborhood is a great



cacophony of shoppers in stores and open-air shops, gridlocked cars and careening rickshaws.

One hundred years ago, however, this was the site of the **Long Tank**, a three-mile-long, two-mile-wide lake surrounded by trees and approached by a broad, shady avenue. Its waters dropped slightly during the dry seasons and rose during monsoons, and every year, at the end of the rainy season and before the sun grew ferocious, the city’s colonial rulers enjoyed an annual regatta from a boathouse on the lake’s placid shore.

That lake is long gone. By 1925, the city government had drained it, filled it with rock and sand, and sold it off in parcels to real estate developers for a tidy profit. This is the one of the earliest documented instances of large-scale urban development on top of a body of water in Chennai, and it set the stage for a century of sacrificing water for real estate. Chennai at the beginning of the 21st century is not so unlike Chennai back in 1925. A burst in population and an economy in transition is demanding more housing and more middle-class amenities in the city center. Because of a shortage of publicly held land in the center, the waterways have become a prime target—the lands on and around them are owned by the city and can be sold off for development without lengthy disputes. As a result, every single one of Chennai’s 43 original natural lake systems and four waterways has been encroached upon.

Although there is no complete account of all of Chennai’s lakes, ponds and reservoirs, a study by **IIT Madras’s Centre for Environmental and Water Resources** Engineering reported that, 20 years ago, there were some 650 bodies of water in the Chennai metropolitan area. Today, very few of these remain intact. According to a June 2011 report in The Hindu, the Water Resources Department said that the total surface area of 19 of the city’s larger lakes had shrunk from 1,130 hectares to 645. And though officials inside **Metrowater**, the city’s official water supply department, say that encroachments on bodies of water have been halted since 1998, media outlets reported on major construction projects on and alongside waterways and lakes in 2004, 2007 and this year.

Until recently, these encroachments were automatically associated (at least by the English-language media) with the construction of slums and

other informal settlements. As such, every major waterway cleanup project has been kicked off, to great fanfare, with a series of slum evictions. As Karen Coelho and Nithya Raman **wrote** in their 2010 essay, “Salvaging and Scapegoating,” slum evictions are easily achievable and have an immediate and visible impact on the city center. But a growing number of scholars, advocates and experts—many of whom are former government engineers—point out that it’s actually large-scale formal development that impacts the long-term health of the city’s water bodies the most.

In fact, according to the environmental group Exnora International, slum residents’ waste accounts for just 0.14 percent of Chennai’s river pollution. The overwhelming majority of pollution comes from industrial effluents and the untreated third of the city’s total raw sewage that is diverted into the waterways. High-rise buildings and raised expressways not only pollute at a much grander scale than flimsy, single-story homes made of tin, thatch and hand-laid bricks, they also sink cement and steel foundations deep into the riverbed, barricading water and waste into stagnant pools and contaminating groundwater throughout the city.

Meanwhile, the best places in which to catch the wealth of fresh water that falls from the sky—Chennai receives about 1,290 millimeters annually, much more than the national average—are shrinking. Much of the last decade’s real estate boom has occurred not just alongside but actually on top of the city’s water bodies. The proposed elevated expressway would shrink the Cooum River from its current width. Much of the public housing in the city’s southern resettlement zone is being built on top of the 50-square-mile marsh in Pallikaranai. As the city’s water bodies shrink beneath buildings and the waste their inhabitants generate, only five percent of its abundant annual rainfall makes its way into the groundwater supply, and the ever-growing population becomes more and more dependent on water from outside the city.

In 2003, Tamil Nadu became the first Indian state to legally mandate rainwater harvesting. A statewide campaign was launched to build awareness about how individual citizens should harvest rainwater in tanks on their roofs. The results have been widely praised by city and state officials—Metrowater engineers claim that the increase in groundwater levels has been demonstrable. Despite this, according to economist L. Venkatachalam,





Shack dwellings along the Cooum River.

to avoid flooding, massive amounts of rainwater are diverted into the sea. Ironically, the city spends millions to rid itself of this potable water. Its recent efforts include a INR 90 million (\$1.67 million USD) project to construct a 62-mile channel from the Kolathur Lake that empties into the Bay of Bengal.

Metrowater focuses tremendous amounts of public monies on these sorts of mega-projects. Perhaps the most famous case is the ill-fated Veeranam Lake Project, launched in the 1970s. It faltered when the 66-inch cement pipes were found incapable of bearing pressure and were abandoned along a highway. Migrant workers soon moved into the empty pipes and set up homes, creating what was, in essence, the most expensively built informal settlement in Chennai. The pipe-dwellers were evicted when the project was finally completed in 2004. But by then, Veeranam Lake had run dry. The city paid for the pipes to be demolished, and used the rubble to reinforce the coast against seawater erosion.

Even supposedly successful projects to augment the city's drinking-water supply—such as the Telugu Ganga interbasin transfer project to bring in water from a neighboring state, some 400 kilometers away, or the new Veeranam project to pipe water in from a reservoir some 250 kilometers away—require tremendous public and private resources to complete and maintain. Now Metrowater leadership is marketing its new desalination plants, which clean seawater through an elaborate process of reverse osmosis, and at the great expense of maintaining equipment and constructing still more pipelines out into the ocean. Desalination may be a boon in the deserts of Israel or Chile, but such water augmentation solutions appear baffling in a city in which a wealth of rainfall is gifted from its skies.

They seem even more absurd alongside more dynamic solutions to water problems being tried elsewhere. For instance, technology developed by the non-profit [Water for People](#) employs low-cost data-mining—some of it channeled through devices as simple as GPS-equipped cell phones—to pinpoint and track problems with water infrastructure; so far, the technology, called [Field Level Operations Watch](#) (FLOW) has been deployed in 17 countries.

According to retired civil engineer and Chennai city historian V. Narasaiah, that acronym spells out the key issue: The core principle of water management is “that water must flow.” Rather than fancy projects, he says, we need to remove waste from waterways, allow riverbeds to breathe, maintain the riverbanks and prohibit encroachment on the water. He offers solutions no more innovative than simply engaging a community of water consumers to participate in the good stewardship of their own resources.

And here is where the hidden cost of this simple approach to water management enters the picture. Rainwater cannot be harvested in large scale without preserving and maintaining large reservoirs and water bodies, which cannot be done without sewage treatment, waste management, and, of course, housing for an exploding urban populace. Tamil Nadu is India's most urban state, with half of its population living in cities, and Chennai is its largest and most rapidly growing city.

In a chapter in a 2007 edited volume on peri-urban water conflicts, S. Janakarajan, John Butterworth, Patrick Moriarty and Charles Batchelor write





High-rise buildings along the Cooum. Chennai is systematically remaking the river’s banks, replacing slum-dwellers with residential and retail development.

that the city’s quest for drinking water may, ironically, be making it grow even faster. As real estate development continues to compromise Chennai’s water supply, causing city and state officials to look further and further beyond the city’s borders to find drinking water for its residents, city and state officials have “drained water resources from peri-urban villages” surrounding Chennai. In forty years of industrialized water pumping, the groundwater surrounding the city has dried up or turned brackish, forcing unemployed farmers into the city in search of work. What emerges is a picture of endless displacement—the thirsty city removes water from the villages, so the village farmers flee to the city in search of work; the growing city needs land upon which to build more housing for these newcomers, so it displaces the same urban poor who arrived from the villages. All the while, the city’s water supply grows ever more fragile. As Chennai strives to keep up with the demand for clean drinking water, its residents, rich and poor alike, turn to the informal water market to meet their needs.

Paying The Price

Afternoon in Chennai. An elderly woman rises from her siesta, rinses and powders her face and orders the maid to fix her a cup of coffee, when she hears a call from the doorway. “Come!” she shouts, and two tall, thick-haired, thick-mustachioed young men step out of their sandals and enter the house, each hoisting on their shoulders two large, plastic containers—the kind you’d find in an office water cooler. She signs a slip charging her Rs. 90

(about \$1.50 USD) for each container and sits down to her coffee. The maid begins to fill reusable plastic bottles to refrigerate.

The two men start their small transport truck, loaded with dozens of other bottles, each labeled “Bisleri” or “Kinley” or “Aquafina,” and merge into the sea of traffic oozing down the hazy street. These days, it is rare to see a cow or a goat among these afternoon throngs of compact cars and autorickshaws, but on every street, there are transport trucks and cyclists pulling flatbeds of water containers. One such cyclist passes the transport truck in the opposite direction and heads down an unmarked street into a public-housing tenement building. There, he meets women at their doorways, who hand over cash payments of Rs 25 (about 40 cents) for each of their own water containers. These containers are unmarked and scuffed nearly to opacity from reuse, but the women here say they trust this water more than the water that comes from their kitchen taps.

Both the cyclist and the transport truck deliveryman work for private water vendors. Chennai’s phone books are thick with listings under “packaged drinking water,” with such evocative names as “Blessings” and “Pure Delight.” Some of these vendors are subcontractors of respected international water-supply companies with extensive quality-control programs; others are private entrepreneurs bottling water from untested, unnamed sources. These are just two types of players in the vast and expanding informal water market in Chennai, from bulk suppliers shuttling up to 120 million liters of pumped groundwater into the city in giant tanker trucks daily, to small suppliers dealing in plastic sachets, individual water bottles, canisters and water-cooler-style containers.

Until 2000, large tanker trucks dominated the private water market, according to L. Venkatachalam—an estimated 10,000 such trucks clog inbound city highways every morning. But in recent years, the water-cooler containers have become the most widespread source of private water bought and consumed throughout Chennai. In his 2010 survey of informal water in Chennai households, Venkatachalam found that some 50 percent of low-income households purchase water privately, some spending more than five percent of their income on it. Although many people purchase water because the city’s water quality is poor and its supply inconsistent, he says the people he interviewed said they would still buy water even if the city



A young boy strolls  
along the Cooum River, a  
symbol of both the city's  
woes and aspirations.





improved the public supply. “They believe private water is better. It is part of the culture now.”

But faith in the private water market has been severely tested. In March, the Central Bureau of Investigation and the Bureau of Indian Standards inspected some 300 drinking-water packaging plants and found rampant and widespread violations. One of the plants in Mambalam was found simply funneling water from a filthy overhead tank full of dead cockroaches through a cursory filter into containers for sale to private consumers. Following the inspection, 92 plants were ordered closed.

Regulating and monitoring the quality of informal drinking water has become a significant challenge for government officials. In May, the Tamil Nadu Pollution Control Board disclosed that of the 121 mineral-water packaging units in and around the city, only 23 are operating under license and with government authorization. The sheer magnitude of regulating informal water providers—whether they are mineral-water packagers or unlicensed lorries transporting water into the city from watershed areas—boggles the mind.

Now, says Narasiah, “Water is being sold black, and what is happening is we are creating an area of criminals.” He describes a troubling sequence of events: In a water-rich area, entrepreneurs begin drilling borewells. The city places a restriction on drilling and pumping and places a police officer there to enforce the restriction. The unlicensed water sellers bribe the officer, and engage thugs who can provide protection. With water now also springs a criminal enterprise.

Here we see a theme emerging in this new urbanist approach: Rather than seeing the city’s poor as innovators filling a gap in the formal system, the city’s current architects seek to scapegoat, criminalize and displace them. In doing so, they exacerbate the very urban problems they sought to avoid. Further hindering any effort to regulate informal private water markets is the fact that, when they first emerged, Metrowater was one of the biggest consumers of tanker-truck water bought from private borewell operators outside of the city. As S. Janakarajan wrote of largely failed attempts to enforce the 1987 Chennai Metropolitan Ground Water (Regulation) Act, “Even though the main purpose was to control groundwater extraction and illegal

transportation of water from these areas into the city, the [Act] is apparently grossly violated not only by private individuals but by the government itself.”

Private packaged drinking water suppliers have responded to regulatory attempts in true South Indian fashion – with organizing and collective bargaining. Since the surprise inspections of packaged drinking water plants, the 869-member South India Packaged Drinking Water Manufacturers’ Association has filed multiple appeals on behalf of their colleagues whose operations were shut down, saying that the closures could compromise the water supply as the city heads into the backstretch of the dry season. Clearly, as evidenced by Venkatachalam’s research, the people of Chennai agree that these markets are a necessary part of the city’s water supply system. What began as an entrepreneurial market designed to bridge a gap in public service has become a widely accepted feature of urban life. Even if the city does succeed in improving its water supply and regulating unlicensed water suppliers, it is clear that private water is here to stay.

But better connections could at least provide an alternative, and some solutions being tried in other cities have shown promise. In Manila the delivery conundrum has been confronted with Bayan Tubig (Water for the Community) systems. Since the government there can’t or won’t create the underground infrastructure necessary to deliver water to private homes in slums, Bayan Tubig systems move water from the perimeter of these neighborhoods into them, using above-ground pipes that connect to centrally located meters. Each homeowner then creates their own “last mile” of infrastructure, connecting small-diameter pipes to the meters and running them to their own homes. In its first year, Bayan Tubig provided water to 19,000 households that hadn’t previously enjoyed private connections, and reduced those households’ water costs by an average of 25 percent.

Simpler still, a system called **NextDrop** developed by a San Diego startup addresses the widespread problem in India of municipal water being available only in unpredictable spurts. For a small monthly fee, users receive text messages 30 to 60 minutes before the city’s water will begin moving through the pipes in their neighborhood, eliminating the need to wait by the pump. Such solutions, however, are not the current priority of the authority in Chennai. As the city’s ambitious waterway restoration plans move forward, residents living in the path of those plans are expected to get out of the way.





Water Displacing People

Near the Kilpauk Water Works in North Chennai, through a passageway behind an apartment complex, flanked on one side by a small temple and on the other by a water pump, is a settlement of nearly 5,000 houses. Thirty years ago, no more than a few dozen flimsy shacks stood here, built by migrants from villages to the south of the city, in Kanchipuram or Thiruvannamalai. Shacks no more, most of the houses in this settlement are now brick row houses connected by an ever expanding web of narrow corridors and footpaths. At first glance, the homes seem sturdy and tell of a striving, middle-class kind of house pride. But a closer look draws the eye to bare overhead wires, held together with cheap spider clamps, funneling stolen electricity into the homes below, and, here and there, to the charred shells of houses burnt down in electrical fires.

The houses have low doorways and shared walls and rarely more than one or two rooms. Most cooking is done outside over open flames. None have running, piped water or indoor toilets. In the rainy season, every roof leaks—whether thatch or tile or tarp—and the corridors flood. In the summer, the heat collects and pools inside like water, because none of the houses have ceiling fans or windows that open and close. But they are all swept clean, neat and uncluttered, and decorated with photos of smiling gods.

ABOVE  
Water is purchased by people of all classes in Chennai, from impoverished slum-dwellers to wealthy residents living in gated communities.

RIGHT  
A man fills jugs from a tanker that brought in water from outside the city.



The people who live here are as invested in this place as any real estate developer. The city has invested here, too; the water authority has built a pump at the entrance to the slum that provides free water twice a day, and has covered open drainage areas where mosquitos and wastewater once collected. The residents benefit from the nearby street lights and bus stops that the city has erected. The children who were born and raised here attend city schools, where they are learning to work in offices instead of cleaning or serving the people who work in them. At least half of the people who live in this community have government ration cards, designating them, officially, as residents of the city of Chennai, eligible for public services and to vote in local elections.

According to the state government, this is a slum. Soon, the people who live here say, they will be evicted and their homes bulldozed. They have not been given formal notification of this, but they know their day is coming. This settlement sits on top of an underground water pipeline, on land that belongs to Metrowater, which is taking the land back—by force if need be.



This clearance is part of a five-year plan unveiled by the Tamil Nadu state government in April 2008 to make Chennai and other Tamil Nadu cities “slum-free by 2013.” Slum clearance is by no means a new objective in Indian governance—the newly independent country passed its Slum Areas (Improvement and Clearance) Act in 1956 and Tamil Nadu established its Slum Clearance Board (TNSCB) in 1970. In the four decades since its founding, the TNSBC has largely failed to fulfill its objectives of improving the living conditions of slum residents and preventing the development of new slums. Between 1971 and 2001, the city’s slum population grew from some 700,000 to nearly 1.1 million, and in this time, the TNSCB managed to complete about 72,000 tenements—or 2,000 new living units each year.

In 2005 the city contracted a study to review the physical infrastructure of Chennai’s slums and determine whether the best approach was to upgrade existing settlements or resettle communities in public housing complexes. The study, which surveyed 1,431 slums across the city, classified 122 of the city’s 242 “undeveloped slums” as “objectionable” because they sat alongside waterways, the public seashore, roadways, or other “places required for public purposes.” By the time the city’s Second Master Plan was approved in 2008, the number of objectionable slums had risen to 150. Faced with the challenge of improving the living conditions of more than 100,000 families living in undeveloped slums—75,498 of these in so-called objectionable areas—the government decided to pursue the eviction strategy, “retrieve the land under their occupation” and hand it back to the government agencies for good stewardship and development.

The Chennai Rivers Restoration Trust has positioned itself as just this kind of good steward. In March, it met with various city and state agencies, including Metrowater and the TNSCB, to plan the Chennai Waterways Rehabilitation Programme. The ambitious, \$2 billion project seeks to stop illegal sewage flows into the river and to divert legal sewage to a dozen or more sewage treatment plants across the city. (Earlier studies documented more than 700 sewage outfalls into the Cooum). Whether this program is successful or, like the many earlier attempts to clean up the river, founders on political paralysis remains to be seen. Regardless, the riverfront slum communities are poised for bulldozing. In fact, evictions from slums on

public lands throughout the city have been underway for nearly five years. The evictions in the Kilpauk Water Works area began in earnest in 2009 when, wielding an order of the city’s high court, Metrowater evicted some 867 families who had been living on 15 acres of land for more than 30 years. The Hindu reported that, at market price, the reclaimed land could be worth Rs 500 crore (more than \$100 million), and both private residents and social justice advocates believe that the government plans to sell the cleared plots to private investors for real estate development. While families with a city ration card would be eligible for resettlement to public tenement housing, many would simply have to pack up and clear out before their homes are bulldozed.

On a sunny afternoon in early March, the neighborhood is quiet. All the men have gone to work and, here and there, women who have returned from morning shifts or finished their morning chores sit in thin slivers of shade under door jambs. Jayabharathi, a tall, broad-shouldered woman with a direct gaze and a resonant, authoritative voice has lived here for 25 years, ever since she joined her husband as his bride. She spent her honeymoon weaving thatch for their roof and pounding the mud floor till it was firm and strong. She sits on a low stool inside her two-room house, looking over her daughter’s shoulder. Her daughter sits on the cement floor, selecting courses for her first year of college on a laptop with a power cord running across the floor and out the window to some unseen power source.

The air inside the home is still and close, but the place is clean and orderly. This is the fourth house Jayabharathi has built in this same spot—she lost everything three times in fires, once in the dead of night. She is under no illusions that this is an ideal place to live, but it’s close to the houses she cleans for a living and the schools that will ensure her daughter doesn’t have to do the same. “Of course it will be hard for us to leave,” she says. “I’ve been here my whole life.”

Lakshmi, who lives two doors down with her seven-year-old son, takes a more optimistic view toward the relocation. Although she’s been here for ten years and has steady work cleaning two houses within walking distance, she is tired of the uncertainty and challenges of life here. It’ll be nice to have a flat of her own, she says. Although her son attends school in the city,



Lakshmi is not worried about the move. “He’ll just ride his bicycle to school.” But Lakshmi hasn’t considered how far away the resettlement zone is from her son’s current school. According to Virgil D’Sami, executive director of the 20-year-old nonprofit **Arunodhaya Centre for Street and Working Children**, the majority of children who have been evicted from slums in the city center—even those who have been resettled to public housing—have dropped out of school.

Those residents of slums in the Kilpauk Water Works area will most likely wind up in Semmencherry, she says, a neighborhood on Chennai’s southernmost edge, some 30 kilometers away from their current home. There are still no schools in Semmencherry. By bus, the trip from here to Parry’s Corner, the main bus hub near the Chennai High Court building, can take anywhere from two to three hours and can cost up to 21 rupees each way.

Today, five years later, the Semmencherry tenement complexes are crawling with unsupervised herds of school-aged children, loitering on corners, playing in alleys and, to D’Sami’s great chagrin, working in pop-up canteens or roadside vehicle repair stands. She fears that the resettlements may well peel back the significant advancements in literacy and school enrollment that have been made among the city’s poor in the last decade.

Resettlement zones still lack much of the public-service infrastructure slum residents in the cities have come to rely on, and slum growth has far outpaced the city’s ability to meet its own goal of humane resettlement. According to the latest plans,the tenements in which Jayabharathi and Lakshmi will be resettled in Semmencherry will be much smaller than their current homes—on average, single-family apartments in the new eight-story tenements currently under construction are around 110 square feet. Unlike earlier resettlement buildings, these new buildings are equipped with elevators, but these will stall during the three-hour-long scheduled power outages throughout the city. And although residents in the apartments will now have indoor toilets, the inconsistent city water supply will likely cause waste matter to stagnate, filling the small apartments with a foul smell and disease-carrying bacteria.

In reality, the people who live in this and other objectionable slums will be

lucky to be resettled anywhere. Unless they succeed in obtaining a ration card registered to the city of Chennai, they will not qualify to be placed in public housing tenements at all and will simply have to try their luck at building an informal house somewhere else. Still, to hear already resettled people tell it, their lives are no better now—and in some ways, worse—than before, when they were living in slums.

Increasingly, innovators and policymakers alike agree that developing slum communities where they have formed is a far smarter approach, and one that is likelier to contribute to the long-term stability and resilience of both communities in slums and in the cities they’re a part of. UN-Habitat has described slum formation as a result of inadequate urban planning and featured case studies of successful in-situ development efforts in eastern and southern Africa.

In India, the current, arguably failed strategy of slum clearance and resettlement may soon be revisited on a national level, with the **Housing and Urban Poverty Alleviation** minister announcing last October that the government is looking to provide long-term and bankable property rights to slum residents. Exactly how this would work remains to be seen. As it is, Indian governments are under tremendous strain to enforce the laws they already have in place. Still, it cannot be denied that slum communities are a source of labor, employment and innovation, and cities would benefit from incorporating them rather than displacing them.

Just as they would their water sources. “It is crucial to keep the waterways in public view. When you cover them up, people lose the connection to them,” says Bharath Jairaj, a senior associate at the **World Resources Institute** and a former activist with the **Citizen consumer and civic Action Group** (CAG). Both the obscuring of waterways and the resettlement of poor communities speak to this—a city that literally cannot see its problems has very little incentive to connect with those problems, and even less incentive to address them.





# Lima, Peru



Since 1960 the population of Metro Lima has quadrupled, transforming what was once a quiet and dodgy downtown into a bustling center of culture and commerce. Still, the city remains thoroughly informal at heart, with most of this growth taking place in informal settlements on the fringe, and many daily business transactions occurring under the table.















**In densely packed areas residents have nowhere to build but up, creating skylines that clearly exhibit how the neighborhoods have developed over time.**







**This city of 8 million people had no formal mass transit until 2010, when it began implementing what could eventually become one of the world's most heavily used BRT systems.**





**Informal markets in Lima sometimes resemble regular malls, even though nearly all the merchandise contained within is illegal.**



# Beneath Its Polished Surface, a Black-Market Shopping Center Thrives

Manuel Vigo

In one of the busiest shopping complexes in downtown Lima, thousands of Peruvians squeeze past each other in narrow corridors and jockey for space in tiny rooms. Music blasts from stalls as shopkeepers try to lure customers with their seemingly infinite rows of goods. The smell of food and plastic lingers in the air.

This is Polvos Azules, an epicenter of retail activity in Lima and a place often referred to (in oxy moron) as the city’s “official informal market.” Legend has it that Polvos Azules, Spanish for “blue powders,” got its name in the 1540s from the material used by leather artisans to dye their skins on a small street behind the Presidential Palace. Five centuries later, the capitalist spirit embodied by those early merchants is alive and well, their leather goods replaced by faux-Levis jeans and bootleg Magic Mike DVDs. Lima is a city where the formal and informal

are naturally spliced, a condition exemplified nowhere better than the bustling and raucous stalls of the Polvos Azules. In the 1980s, semi-ambulant vendors began congregating in Polvos Azules, selling Walkmen and VHS video tapes, and eventually growing in number to upwards of 5,000. In the early ’90s, they organized, forming the Association of Owners of the Polvos Azules Commercial Center. The association negotiated a relocation program with the city, and built a large shopping complex with 2,400 stalls.

Today that shopping center is one of the city’s biggest retail destinations, and a major source for pirated electronics, knock-off clothing and contraband shoes—despite being located just three blocks away from the country’s Supreme Court building.

Polvos Azules is a study in contradiction. According to Gestión, a local business newspaper, 90 percent of its stores are “formalized.” They pay taxes (to some degree) and adhere to basic safety standards. The shops are fully licensed by the city, and much like Lima in general, the building itself has been gradually transforming into something that, at least visually, appears formal and regulated. Dirt floors have been upgraded with ceramic tiling, many



of the stores now take most major credit cards, and even Interbank, one of the country’s largest banks, has opened a branch inside the sprawling complex.

But this drift toward aesthetic formality hasn’t changed the fact that the vast majority of the inventory at Polvos Azules continues to flow in via the black market. What’s more, data and anecdotal evidence suggest that its customers prefer it this way. A recent study found that on average, the market boasts almost four times as many sales per square meter as Jockey Plaza, one of the city’s largest upscale malls.

And unlike Jockey Plaza, a dazzling edifice filled with high-

end boutiques and department stores, Polvos Azules merchants offer low prices and the option of haggling. According to several shoppers interviewed there, both of those aspects are a big part of its appeal. One customer summed it up by saying he goes to Polvos because “it’s cheap and not unsafe.” The market also caters to niches that more commercial shopping outlets don’t. Certain stores deal exclusively in Japanese manga and anime, for instance. Some specialize in old TV shows. Others sell adult movies.

Yet even as Polvos, like the city around it, has inched toward formalization, workers there continue to operate without labor

A series of renovations have made Polvos Azules nearly indistinguishable from a formal mall.

Manuel Vigo





protections, and many are wary of talking about what they do. Amanda, a short and slender woman in her forties who has owned her four-meters-square space at Polvos Azules for the past twelve years says she still gets a hard time from city officials. “I’ve gotten into trouble with the public prosecution’s office for selling Nike and Adidas replicas,” she says sheepishly, surrounded by Lacoste and Tommy Hilfiger knockoffs. The market is raided by the police from time to time despite the fact that the city tacitly approves of its existence. Yet even the raiders seem ambivalent—informants inside the police

department alert shopkeepers days before the raids take place so they can store their pirated items. “Actually, we’re missing them today because we usually have a visit from them on December 15, and today is the 15th, and still nothing,” says Amanda, poking her head out of her stall and glancing down the long hallway. Over the past decade several attempts have been made to further formalize Polvos Azules and provide better working conditions inside the market. In 2006 the International Labour Organization **launched a program** to provide microfinance, health care and

Formerly dirt floors are now tiled.

# “Lima is a place where piracy has become institutionalized.”

technical training to its workers. But Mario Tueros, who headed the ILO project, tells me they had a hard time executing it. “There were administrative problems with the amount of people involved in [Polvos Azules’] leadership,” he tells me. “The average worker at Polvos Azules is hard to locate, but is also probably working in representation of someone else.” The Municipality of La Victoria, the district in which Polvos Azules is located, did not respond to inquires as to why the city continues to issue permits to a market that sells illegal goods. A call to INDECOPI, Peru’s intellectual property protection agency, also led nowhere—the person who answered the phone said most of the officials were on vacation for the holidays. The lack of official concern is telling. In many respects, Lima is a place where piracy has become institutionalized. Most Peruvians purchase illegally sold items in one form or another. In that context, the enduring popularity of Polvos Azules isn’t hard to understand—not only does it offer “brand-name” goods for a fraction of the price,

it generates employment for 5,000 residents, according to an estimate by the ILO. And it’s not just a hit with locals. Amanda says that in the run up to Christmas, tourists from countries where bootleg goods are harder to find stock up at Polvos Azules before heading back home. “They come before the holidays, in October and November,” she says of the tourists who gleefully hoard her Lacoste and Abercrombie imitations, paying prices they can hardly believe. “They take big loads, suitcases full... and they sell them as originals.”

The complex is a good place to find DVDs before they’re officially released.









# An Informal Cemetery Copes With Unwanted Newcomers: The Living

Manuel Vigo

“It’s funny how life is shared from behind tombstones,” says a voice. It’s a startling introduction, especially coming from behind me in a desolate cemetery. I wheel around and find myself face to face with Raul Castro.

“Like the Cuban president,” Castro explains with the stern demeanor of an actual dictator. A self-proclaimed former track star who was injured during his part-time job as a garbage collector, Castro is now one of the caretakers at Cristo El Salvador, a cemetery located in Villa El Salvador, a district of Lima that began as a shantytown on the outskirts of the capital in the early ’70s.

Back then, this area was strewn with a few hundred homes built out of matted reeds on sandy hills. Today, Villa El Salvador is a sprawling urban area filled with brick houses and close to half a million inhabitants. Neighbors and city officials built the Cristo El Salvador Cemetery (Spanish

for “Christ The Savior”) in 1986 on a hill that overlooks the entire district. Shortly after it opened, an informal cemetery popped up right next door, and quickly became the larger of the two.

During the day, Castro hobbles over the cemetery’s uneven grounds, aided by a crutch, removing debris and keeping an eye out for vandals. He tells me the area is reasonably quiet during the day, and that typically his biggest concern is chasing out the local children, who take advantage of the formal cemetery’s smooth concrete surface for skateboarding. “My colleagues who work at night tell me that sometimes junkies come out to the cemetery, looking for an empty crypt, on the higher levels, to sleep in,” he says. The image sends a chill up my spine.

Domingo Lazaro, one of the cemetery’s caretakers, tells me he worked at Cristo El Salvador when it first opened, and dug the first graves. “Back then there was nothing, it was silent,” he says. “There were no homes or anything.” Today there are hundreds of crypts stacked atop one another. Stray dogs roam languidly, their eyes skeptical, looking for shade and water. Dead flowers and beer bottles are sprinkled across the sandy ground, signs of earthly activity.



At the formal cemetery families can buy a small plot, upon which they’re allowed to build four graves high. When someone dies, family members hire a local construction worker to build and decorate the crypt. A man who goes by the name Juanito seems to have a monopoly over this construction work; his workshop, located virtually inside the cemetery, has his cell phone number painted on the side. Juanito’s handywork can be found on countless tombs across both the

formal and informal cemeteries. Many of the crypts feature unique designs; some have murals and poems inscribed on them. In the informal cemetery the memorials range from small yet ornate mausoleums to simple mounds of sand and stone that lack any sort of identification. The plots are arranged in no discernible order, though most look out toward the homes of Villa El Salvador. Recently, improvised dwellings have started to invade both

Cristo El Salvador Cemetery was built in 1986 on a hill that overlooks the entire district. Shortly after it opened, an informal cemetery popped up right next door.

Manuel Vigo





cemeteries, some of them less than three feet from the graves.

“They have invaded the land ... and over there they have built pig farms, and even a soccer field,” says Castro. One of the local bus lines runs right through the middle of the formal cemetery, providing transit service to the new informal homes.

At the formal cemetery families can buy a small plot, upon which they’re allowed to build four graves high. When someone dies, family members hire a local construction worker to build and decorate the crypt. A man who goes by the name Juanito seems to have a monopoly over this construction work; his workshop, located virtually inside the cemetery, has his cell phone number painted on the side.

Due to the growing number of anonymous graves, late last year local officials announced an initiative to help identify the close to 6,000 unmarked tombs that lie here. Because the district is now trying to clear out some of the plots, Castro says some people are choosing to exhume their loved ones’ bodies so they can either bury them elsewhere or have them cremated. He points me toward the man who usually deals with the exhumations: Ruben, a muscular fellow in his forties who also runs a flower stand with his wife right in front of the cemetery’s entrance.

“It’s hard to remove the body from the dirt. The land is no longer virgin — it is contaminated,” says Ruben, sounding a bit like a mystic.



He says he charges 150 to 200 soles (\$58 to \$78 USD) to exhume a body, and up to 1,500 soles (\$588 USD) to build a crypt. “Today,” he says, “dying is expensive.”

Castro says the cemetery has started to dwindle in popularity because of the informal homes popping up. “Local politicians have started to allow people to invade the land. This cemetery was never meant to be next to houses.”

“It’s strange how the dead and the living live together,” he ruminates. “The water trucks go by here, and the kids start yelling, ‘Water, water!’

And the waterman stops to bring in life, to bring in water.”

Castro says he spends a lot of time thinking about this interplay between life and death, the here and the hereafter. Next to us, a house sits at the edge of the cemetery, its walls painted with white block letters advertising its products: cold beer, and access to a bathroom.

“Even after you’re dead you keep generating money,” says Castro, his gaze low and steady across the endless rows of tombstones. “That’s life.”

RIGHT  
Informal dwellings have crept up to the cemetery’s edge. Some lie as close as three feet from the graves.

LEFT  
In the informal cemetery the memorials range from small yet ornate mausoleums to simple mounds of sand and stone.







# Slow Jam

## Can Lima Finally Untangle Its Transportation Mess?

**Manuel Vigo**

**Photography by Oscar Durand and Ellie Gardner**

“One, one, five!” shouts the datero. Luis, one of Lima’s more than 32,000 bus drivers, is slouched over the steering wheel. He curses. He knows what this means: He’s got competition.

It’s a typically raucous Friday night in the Peruvian capital, and the streets are starting to clog. Workers are streaming from office buildings and gathering at street corners, squinting to see which bus will carry them home. Plumes of dark gray smoke chug from tailpipes. Luis’s bus idles on the right side of the street, his seat rattling beneath him. The drivers behind us lean on their horns.

The dateros’ voices waft above the din, their numerically coded cries informing the city’s competing bus drivers how far apart they are from each other. By yelling out “One, one, five,” this datero is telling Luis that the last bus drove by the same spot one minute ago, another drove past one minute before that, and yet another five minutes before that. Luis’s partner, the cobrador (Spanish for “collector”), has just stepped out of the dinged-up blue bus and is screaming out its route to potential passengers. He hands the datero 20 cents for his service.

Luis knows he has two options: Either catch up with the bus in front of him and pass it, reaching the passengers down the road first, or slow down and hope that new passengers arrive by the time he gets there.

He cranks into gear—Luis is ready to race.

This mayhem is what passes for a mass transit system in one of South America’s fastest growing cities. During rush hour, Lima’s gridlocked streets are a sea of multicolored buses. They compete for passengers at every corner, turning the streets into a frenzied fight to the death. (Traffic





accidents are the number one cause of “lost healthy life years” in Peru). Incredibly, until three years ago, Lima, a capital city of eight million people, had no formal public transportation system whatsoever. Instead, it relied on a complex model that allows for-profit transportation firms to license public bus routes, operating them with their own private buses and employees. This model has turned public transportation in Lima into a free-for-all, with multiple private bus companies competing head-to-head on single routes. Today an average of 28 different transportation firms work any given kilometer of a bus route in Lima.

More than 32,500 buses operate in the Peruvian capital. (New York, a comparably sized city, has 5,600). “The city of Lima is the only city of its size in Latin America which has failed to provide an articulated urban transport system,” says Juan Tapia, a director of Protransporte, the city’s public transportation agency. But the system, for all its chaos, also provides cheap and plentiful transportation to the city’s working class, going places (and keeping fares lower) than the formal systems in many other cities.

All of this may soon change, however. A growing city with a booming economy, Lima is eyeing a major overhaul of its mass transit system, aiming to tame and enhance it at once. The highest-profile element of this overhaul hit

the streets in 2010: The Metropolitano, a state-of-the-art bus rapid transit system. Ultimately expected to move more than 600,000 passengers every weekday, the city hopes the Metropolitano will soon become one of the most heavily used BRTs in the world.

Not just a more orderly way to get people around, the new system is a feather in the cap of a city that’s working hard to reinvent itself as a modern capital of the Global South. It’s a phenomenon taking place all over Latin America—as cities like Bogota and Mexico City become economic forces, they’re racing to create transportation systems that match the new personas they hope to project. “During the last ten years, 97 cities have implemented BRT corridors, many of them located in Latin America,” the Brookings Institution reported in 2011.

But not everyone’s on board with the plans for reform. Although bus drivers and cobradores acknowledge a need for changes to the system, there is widespread fear in the informal transportation sector that reform will leave them in the dust. It’s not just drivers—by some estimates, millions, from dateros to roadside vendors to window washers, rely in some way on the current system for employment.

If there’s one thing virtually everyone agrees on, however, it’s that some kind of change is necessary, and that Lima’s future depends on finding a way out of its transportation mess. The current reform effort is a make-or-break moment for the Peruvian capital, and could lead to a highly



Passengers cram their way into a private bus on Javier Prado Avenue.



functional system that covers 50 percent of the city’s demand for public transportation. Failure to act, on the other hand, could drop the average travel speed on Lima’s roads to a projected 13 kilometers per hour, bringing the city to a virtual standstill.

A Traffic Jam of Transit

“First they tried to kidnap my children, then they tried to kill me,” says Juan Tapia, sitting in his office overlooking Javier Prado Avenue and sounding thoroughly unimpressed. Tapia has been in the transportation business in one way or another for 38 years, and is deeply passionate about the reform of a system that once nearly cost him his life. In 1991, as head of the state-owned National Urban Transport Company (ENATRU), he was targeted by the Shining Path terrorist group, which assassinated government officials in the 1980s and ’90s.

“In the 1990s the Shining Path declared ‘armed strikes,’ and during these strikes transportation workers could not go to work,” says Tapia. “If they went out to work [the Shining Path] would burn their buses.” Under Tapia’s orders, the state-owned ENATRU buses continued to operate anyway, with armed police officers on board.

In response, says Tapia, “In 1990 and part of 1991, [the Shining Path] burned over 100 buses.” Tapia responded by painting the buses with fire-retardant paint.

His war-weary demeanor suits a man whose job it is to attack Lima’s god-awful traffic problem. Today, the average commuter spends over two hours getting to and from work. A billion dollars evaporates every year in lost productivity and pollution-related health problems. Sensational stories of gangs robbing gridlocked drivers make the nightly news. But Limeños are also public transportation nuts—fully 80 percent of the city’s residents use mass transit, says Tapia. With that kind of ride-share, successful reform has huge potential.

Such reform has been a pipe dream for decades. In fact, Tapia’s been doing this long enough to remember when Lima’s problem was exactly the opposite of what it is today. In the ’80s, when the city’s public transportation was highly regulated, ENATRU operated more than 600



Lima’s new BRT system offers residents a more orderly way to get around the city.

buses, but they were small and unreliable. Meanwhile, the city’s population was exploding—Lima has quadrupled in size over the last 50 years—and the sprawling informal settlements at the city’s outskirts where it was growing fastest weren’t even connected to the system.

This all changed in the early ’90s when President Alberto Fujimori began deregulating Lima’s urban transportation network as a way to curb unemployment. The move opened the floodgates: In 1993, more than 323 new bus routes were created, and private firms were allowed to work the routes, import buses and set their own prices. By 1992, the state-owned ENATRU was dissolved, and its buses sold to private transport enterprises. “We went from having 10,500 buses to having 50,000,” says Tapia. “Lima was total chaos.”

By the end of the decade the city had 570 bus routes prowled by 257 different transportation companies. Making matters worse, the total number of vehicles in the city had doubled during the same period. “It was like science fiction,” says Tapia. Something needed to be done, and it almost was. In the late 1990s, the World Bank proposed an urban transportation project in Lima. “We worked [on it] between 1996 and 1999, but it was blocked by Fujimori because he didn’t want to give Alberto Andrade [Lima’s





then-mayor] any credit,” says Luis Gutierrez, an urban transportation specialist who worked for the World Bank at the time. Gutierrez would go on to become one of the founders of the Lima-Callao Transport Council, an organization created to address the city’s transportation woes.

The BRT is the first formal transit system to exist in the city since the early 1990s.

When Fujimori resigned in 2000, both Lima and the world had changed. The city’s transportation mess was bleeding it of \$500 million per year, according to the [World Bank](#), and the expanding bus fleet had helped make Lima one of Latin America’s most polluted cities. Meanwhile, nearby Bogota was putting the finishing touches on its new BRT system, the TransMilenio. “We restarted the dialogue—in a slightly different fashion,” says Gerhard Menckhoff, who then worked for the World Bank. Menckhoff had started the transportation reform process in Lima in the 1990s and stayed on as a consultant until 2010. “TransMilenio had started operations, and a lot was learned about how one could do it better than what we had designed at the time,” he says.

Funding for Lima’s BRT was finally approved in 2003, with the Inter-American Development Bank and International Bank For Reconstruction and

Development each committing to lend the city \$45 million. It was agreed that the Metropolitano would be developed under a public-private partnership, with concessions for bus feeder routes, and would be located in segregated lanes on the Paseo de la Republica Expressway, where a network of private bus operators was currently covering the route. Construction began in 2006, and the system opened to the public with fanfare in 2010.

Looked at in isolation, the Metropolitano’s first three years have been a success. Its ridership has grown steadily to 500,000 passengers daily, just shy of its optimal capacity of 600,000. On any given day thousands of people stand in line, charge cards in hand. They make their way to the turnstiles and file into open-air stations, exposed to Lima’s characteristically warm, gray skies. On the buses, passengers are packed tightly, bunching near the door, afraid they won’t be able to squeeze out when the bus arrives at their station.

But despite its popularity, it would be a mistake to confuse the cutting-edge system for a wholesale solution. In reality, the Metropolitano’s reach is still quite low. “Building a Metropolitano takes about eight years,” says Tapia, “and it attends to five percent of the demand.” Flashy, large-scale projects like this, he says, are not the answer to Lima’s transportation crisis. “Doing it project by project, it would take the city 100 years [to solve its problems],” Tapia says. “The city can’t withstand 100 years. This needs to be solved today.”

This has historically been a sticking point for cities trying to get their streets under control. Megan McConville, program manager at the U.S. [National Association of Development Organizations](#), spent a year in Lima studying its transit system in 2006 and 2007. At the time, she says, “There was a disconnect between the different entities that were planning the different parts of the transportation system. Back then I was newer to the field, and this struck me as a big problem. Since then I’ve learned it’s a big problem in cities around the world, including the U.S. Each agency looks at their specific project... without considering how it fits into the larger picture.”

Though it has its problems, Bogota’s TransMilenio system is so well regarded in part because the city made sure it never lost sight of this larger picture. Though the BRT system is the most visible component of that city’s



transportation reforms, it’s only the centerpiece of a much broader effort that encompasses both infrastructure and policy. In addition to BRT, Bogota raised its gas tax from 14 to 20 percent, erected barriers to prevent cars from parking on sidewalks (until then a common practice) and implemented the “pico y placa” program, which restricts cars from driving on certain days based on their license plate numbers, a tactic used with success in some Asian cities. “What did the TransMilenio do?” Tapia asks. “Start with the transport reform—restructure the system first, and then the infrastructure, because ultimately what people want is to travel comfortably.”

This is what Tapia means when he says Lima learned from the TransMilenio—not just how to build a better bus system, but how to build a more agile city. Lima, he says, is implementing complimentary corridors to the Metropolitano and focusing on reducing the current number of buses. “The number of private buses is now frozen at 32,500 vehicles, and if we’re introducing articulated buses there can be an oversupply... And we have to reduce this, so that the system has an economic balance.”

A bus-scrapping system based on the one used in Bogota kicked off in Lima in January 2012, and saw 1,000 older buses scrapped within a year. Once the buses were taken off the streets, they could not be replaced; in exchange, their owners got between \$4,000 to \$10,000 USD for each unit. “Many people were happy,” insists Tapia. “They said, ‘Finally I’m out of this damn business.’”

Furthermore, the central government recently introduced a law that will phase out even more older buses over the next decade, dropping the age of the average bus from 32 years to 15.

Tapia says a lack of financing has halted the city’s scrapping program, but plans to introduce the five non-BRT complementary bus corridors to the Metropolitano remain in place. If successfully implemented, the system’s complementary corridors would expand the Metropolitano’s service dramatically. “We are implementing complementary corridors, which can reach 50 percent of the demand,” says Tapia. “This is a reach of five to six million people, transported in buses with conditions similar to that of the Metropolitano, with a tiny investment.”

The complimentary corridors, Tapia says, would be fully integrated with the Metropolitano as well as the new Lima Metro, an electric train line opened last year. A single charge card would integrate both systems.

The city is hoping that the increased quality of public transportation will ease the city’s congestion and decrease the demand for taxis. But striking the right balance is tricky business. For instance, McConville points to the city ordinance forbidding private buses from operating within 400 meters of the Metropolitano, a rule meant to boost ridership on the new BRT. “But that’s a temporary fix,” she says. “I think an unintended consequence of that rule might be that more taxis start clogging the streets in those buffer zones.” (Tapia says this has not been the case, and that the Metropolitano has led to fewer taxis along these routes).

McConville also stresses that while reforms by themselves are commendable, creating transit-oriented development is the mark of true greatness when it comes to a transportation system. But how do you build transit-oriented development in a city where development itself seems naturally predisposed to informality, sprawling at the fringes and changing by the day? This is how Lima has grown for decades now—and why the private bus system, for all the problems it causes for the city as a whole, has thrived on its nimble, adaptable merits.

“There’s a reason transportation works the way it does in Lima,” says McConville. “The system’s flexibility, it’s coverage—a lot of the people most in need of good transit service are the low-income communities on the periphery of the city. These communities are growing and changing all the



Protransporte’s Juan Tapia has spent most of his life trying to fix Lima’s traffic woes.



time. It’s very hard to serve that with a formalized transit system.” A big reason transit ridership in Lima is sky-high, in fact, is precisely because of the way the current system works. Private buses go directly to where the people are, and charge them what they can afford. Formalizing that system may be a risk worth taking, but it’s still a risk.

“The challenge that Lima has is to [reform the system and still] retain the 80 percent of residents that use public transportation,” says Tapia.

Part of what made the city’s private bus network so appealing was that it was able to adapt to Lima and its expanding population. Before the influx of privately owned buses, the city’s residents—especially those at the periphery—had inadequate access to transport.

Today Lima is attempting to reconcile city-run transportation with fringe settlements through the use of non-BRT feeder lines. The feeder lines branch out from the Metropolitano’s north and south terminals, linking traditionally underserved communities with the Metropolitano’s main route. In the process, they’re integrating some of Lima’s poorest communities with the rest of the city, an ideal reflected in the Metropolitano’s official motto: “Lima’s transport, for everyone.”

**A System That Supports Millions**

For reform to succeed, it will not only need to serve the people who use the system, it will have to take shape with the needs of the city’s current private operators taken into account.

When the city issued its ordinance forcing private buses operating within 400 meters of the Metropolitano to change their routes or face substantial fines, it was initially met with resistance. Eventually, however, the private bus lines complied with the rule. In total, some 1,800 buses were affected by the move.

Faced with these expansive plans, many in the city’s private transportation companies feel they have reason to worry, as it seems many of them could see their routes displaced or eliminated. In the past, when officials have attempted to tighten regulations over the private buses, these have been met with citywide transport strikes. “The reform is a big social problem, it



wouldn’t just affect us,” says David Lopez, a bus driver who’s been behind the wheel of a combi for the past 16 years. “When a combi works, you have the owner, the driver, the cobrador, sometimes two cobradores and two drivers, then you have the guy who comes and cleans the bus, then the lady who sells the corn, the lady who sells cakes, the lady who sells drinks—this generates jobs, and they would all lose their jobs [if these bus routes were formalized].”

One of Lima’s 32,000-odd bus drivers works a route behind several other private bus operators.

Lopez is right. Even Tapia—a numbers man—admits that there could be anywhere between 1.5 and 2 million people making a living off of public transportation, a staggering figure in a city with a population of just more than 8 million. “There has to be a system that integrates everyone,” says Lopez. “There definitely has to be a change. I think it is normal for me to worry, but I can’t oppose a change, because this system is atrocious.”

Lima officials say they are aware of the need to integrate existing bus drivers into the reform plans, and Tapia says the current bus operators are an important part of the new system. Other cities have grappled with this before. Mexico City, which recently launched its own BRT system, turned





Gina Granados, who works as a cobradora alongside her husband, a combi driver, is skeptical about her place in the new system.

over some of its formalized operations to the private bus operators who had previously worked on the routes that were displaced. Those operators gave up their buses, and in return, collect a guaranteed steady paycheck that amounts to about 80 percent of their former earnings.

But the transportation workers I talked to in Lima say that while the city has paid them such lip service, they have never felt part of the decision-making process, and haven't been approached about being part of a new system.

"The biggest hurdle is in implementing social mitigation plans. That requires a lot of money," Tapia says. For instance, the city has set up special schools to retrain drivers and cobradores to work in the new system. "The idea is to retrain current drivers so that they can drive behind the new buses, and to try to retrain cobradores so they can be drivers," he says. Tapia says other transportation workers would be retrained to carry out administrative tasks, or so they could be part of other industries, such as tourism.

Some informal workers I spoke to were skeptical about their prospects for new employment in the formal system. "How many people will lose their jobs?" asks Gina Granados, who works as a cobradora alongside her husband, a combi driver. "The city has its Metropolitano, but it will only employ its own people. They have never talked to us about the possibilities."

As Limeños become more desperate for some kind of solution, however, their empathy for those in the private bus system may be wearing thin. "There have been 14 transportation strikes, and they just tried to do another one and no one listened to them," says Tapia. "There is a sector [of transportation workers] that is becoming aware that the city doesn't want the current system."

That system has served the city for over 20 years now, and has kept fares unchanged for well over a decade. By contrast, late last year the Metropolitano raised its fares on the BRT to make the line profitable. The increase from 1.50 to 2 soles (USD \$0.77) on the main line's flat fare makes the Metropolitano's cost almost double that of the private buses.

In many ways, this is a familiar story. As cities around the developing world rise to prominence in the global economy and strive to attain the status of so-called world-class cities, the tension between how those cities operate—and at what cost—only becomes more complex. For Lima, how transportation reform plays out will say a lot about what kind of future the city is headed toward.

Rush hour on Javier Prado Avenue. Transportation reform will need to happen one way or another in Lima, or the city will be brought to a virtual standstill by its traffic congestion.







# Manila, Philippines



A conglomeration of cities spread along a flood plain, Metro Manila is a complex place. Millions of the city's residents live in informal settlements, their existences routinely upended by typhoons and evictions. And approximately half work informally, employed in every field from domestic labor to shoe repair. A rapidly growing city, Manila's challenges are immense.







**In Manila, life is especially mobile: Food is sold from trucks called jolly jeeps, gas is bought on the go in Coke bottles and large tricycles provide public transportation.**















# The Secret Lives of DVD Bootleggers

Purple Romero

When law-enforcement officials swooped into his tiny shop in the bustling Guadalupe marketplace in Makati City, Kenneth wasn't worried about going to jail. It was a daytime raid, and within minutes, the authorities had confiscated his bootleg copies of Academy Award-winning blockbusters, Korean telenovelas and Filipino rom-coms. As he stood watching in silence while his stall and the others around him were ransacked, all he could think was, "There goes our P20,000"—about \$400 USD worth of merchandise.

The raid went down just last week, but Kenneth is unfazed. In fact, lately the raids are becoming routine, a twice-a-month occurrence, with members of the Philippines' Optical Media Board (OMB)—the government agency tasked with going after the manufacturers, distributors and sellers of pirated DVDs—clamping down hard on the country's formidable bootleg-film industry.

The agency's efforts have paid off. Last week, the U.S.-based

International Intellectual Property Alliance recommended the United States remove the Philippines from its piracy watch list. It singled out Makati City markets for praise in scrubbing out pirated movies, and said that its members "wish to laud the leadership of the Philippine government." In Quiapo, the hub of Manila's pirated-films trade, OMB head Ronnie Ricketts and Manila Mayor Alfredo Lim have conducted joint inspections of spots notorious for distributing and selling pirated DVDs, at one point even bringing representatives of the U.S. embassy with them.

Ricketts has also trained his eye on stalls that sell pirated films in commercial establishments. He said he wants to help vendors find ways to sell legal DVDs instead. In Quezon City, the local officials are exploring the option of providing livelihood opportunities to sellers who may lose their jobs following a ban on pirated videos.

But Kenneth, for his part, isn't interested in going straight. He'll just have to sell more DVDs to reclaim the \$400 his boss paid for the 200 films he lost, he says. The 23 year old is more concerned about this debt than going to jail—and even if he does go to jail, he says, as soon as he's out he will return to the Guadalupe marketplace and the business he's been in since he was 13

years old. Kenneth still looks and speaks like a teenager, in fact. His entry point to the world of pirated DVD sales came when he began serving as an assistant to his uncle. He dropped out of high school and became reliant on the income, eventually working for his uncle full-time and earning around \$3 for every \$49 worth of pirated DVDs they would sell.

When got married, his uncle raised his salary by a buck. He and his wife have since gone their separate ways, so now he's back to earning \$3. "That's why I'm looking for a wife again," he laughs. Kenneth is at the bottom of the food chain in this multimillion-peso industry. The owner of the stall earns more than he does (Kenneth wouldn't reveal by how much) and then there's the distributor of the pirated goods himself. Kenneth says whenever there are new films, the distributor leaves them in a predetermined secret spot in the market where the sellers can pick them up.

The DVDs sell for as low as a dollar or less. The more expensive



ones, which cost \$2 to \$6 USD, are Bluray quality or complete sets of television series. Filipinos are enthusiastic consumers of the black-market product, with no less than presidential adviser Ronaldo Llamas himself reportedly buying almost \$50 worth of pirated movies.

Nevertheless, the OMB's crackdown continues apace, in part, the agency has stated, to help stanch the slow bleed of the country's film industry. Up until relatively recently, 200 Filipino films were produced every year. Today, that number is closer to 65.

Surprisingly, some in the film

Kenneth, a dealer of Manila's pirated DVDs, showcases his merchandise.





A harsh clampdown on Manila's pirated DVD industry may prove no match for the raw power of overwhelming demand.

Purple Romero

industry think piracy has an silver lining.

Rolando Inocencio, an actor and assistant director, said pirated DVDs raise the profile of his films. “As actors and assistant directors who are basically hired talents, piracy is good for us in the sense that it allows more people to watch and hopefully appreciate a particular creative work of ours,” he says. There are titles, for instance, that are difficult to find in traditional video stores, but can be bought on the street from people like Kenneth. “For movie-makers, this wider selection of titles is good because it allows us to view works which we wouldn’t otherwise see and appreciate them

make fewer or cheaper movies, which means less work for actors like Inocencio, too.

For instance, Erik Matti, a director and producer, said pirated copies of his film *Tiktik: The Aswang Chronicles* were being sold all over Metro Manila less than a month after its October 2012 theatrical release. After three months, Matti discovered a YouTube video of the film with 200,000 views. “If we convert it to theatrical ticket sales, that would have been a really big help at the box office,” he says.

But the insatiable demand for pirated movies seems to put Team Kenneth on the winning side—something Kenneth himself readily agrees with. He says as long

**“...the rise of film piracy has put an undeniable crimp in the financial development of the Philippines’ struggling film industry.”**

as professional. For non-movie-industry workers, it hopefully leads to more sophisticated movie tastes.”

But Inocencio also admitted that the rise of film piracy has put an undeniable crimp in the financial development of the Philippines’ struggling film industry. Producers who can’t earn from DVD sales will

there are those who are willing to participate in the market, and who can only afford to watch films by buying the bootlegged kind, the industry will continue to thrive. “As long as there are poor people, pirated films will sell.”





**A performative society at heart,  
even slums without indoor  
plumbing often have a community  
karaoke machine.**





# Tricycle Drivers Get Paid in Burgers, But Not Much Cash

Purple Romero

In 2012, Tomas Baguiringan, a tricycle driver in Metro Manila, got free tickets to *Si Agimat, si Enteng at Ako* (The Amulet, Enteng and I), one of the biggest Philippines blockbusters of that year. He wasn’t part of the cast or the production team, nor was he a friend or family to either of the two dashing stars. As one of the 263 tricycle drivers who ply the Barangay South Triangle, one of the busiest commercial areas in Quezon City, Baguiringan was a rolling promoter for the film, the ads for it plastered on the side of his bike. The tickets were part of his pay.

That year, 168 of these tricycles carried the tarpaulin emblazoned with the film’s title as they breezed through the district’s streets and past the country’s top two major networks, ABS-CBN Broadcasting Corp. and GMA-7. Barangay South Triangle’s 12,000 residents saw the ads everywhere as Baguiringan and his fellow tricycle drivers carried them on their vehicles up to 12 hours a day.

Each of the drivers who carried the ad was paid P100, or about \$2.46 USD, which adds up to less than \$500 USD. Compared to the hundreds of thousands of pesos that the advertisers spent on TV and radio ads, this was a marketing coup for the film’s publicity team. Baguiringan said they were paid an additional \$4.91 each when the campaign was over, and were given two free movie passes.

Tricycle ads are one of the least expensive forms of advertising in Manila, but even at their bargain price they’re more expensive than they used to be. When Baguiringan first started working as a tricycle driver eight years ago, he said they received a request at least once a month to have ads hung on their vehicles. At the time they would agree to carry the ads for free. Eventually, however, the drivers got together and passed a resolution setting \$2.46 as their minimum fee for advertising. It’s a very small sum, but Baguiringan said the drivers were mainly looking for some form of “appreciation.” (To put that in perspective, the film they promoted ultimately grossed \$11.5 million USD—the \$4.91 they received for promoting it could have bought them just one ticket)

There are no formal contracts or conditions in most of these arrangements. The payments



and duration of the advertising period vary from one company to another. But as informal as it may be, Baguiringan believes tricycle advertising to be among the most effective Manila has—there’s no need to work hard to attract eyes when hundreds of pairs of eyes are looking for you.

Manilans of all stripes use tricycle transportation. Al Amida, an employee in a parish in Barangay South Triangle, says the tricycle is the cheapest, most convenient way of getting around the closely knit neighborhoods. The vehicles seat five, and passengers have the option of paying a mere 20 cents USD

each if they are willing to ride with others, or 50 cents each if they want to go solo.

“They take you right in front of your doorstep,” Al Amida says. Cab fares, by comparison, include a flagdown rate of one dollar, and that’s before the car even starts rolling.

The tricycles lined up along the side of the road in Barangay South Triangle advertise products, fast food and events. Arnold Samela’s tricycle carries a tarpaulin advertising McDonald’s, the familiar yellow “M” right above the address of the franchise’s newest branch in Quezon City. “Do you

Tricycle ads are one of the least expensive forms of advertising in Manila, but even at their bargain price they’re more expensive than they used to be.

Purple Romero





McDonald's ad on cart.

know what kind of privileges we get for putting it there?" Samela says. "We get a free meal of chicken and rice twice a month!" He says the branch manager keeps a list of the license numbers of the tricycles that carry his ads.

Samela, who has been working as a tricycle driver for 12 years, considers this no small perk. A tricycle driver earns \$12 to \$14 USD per 12-hour day—just barely enough also to cover the skyrocketing prices of gasoline, food, electricity and water.

Baguiringan says they also get free burgers from McDonald's each time they hold a general meeting there, which is at least once a month.

Other ads promote shops selling car parts, private schools and spaces being rented out in the city. Gone at this point, however, are the campaign ads that used to dominate the trikes' spaces years ago.

In the heat of the local elections, the candidates would post their tarpaulins all over the tricycles. In 2010, deposed president Joseph

Estrada—a former actor who won by a landslide in the 1998 presidential elections by using a jeep as a symbol of his pro-poor campaign—used the tricycles in his bid to reclaim the highest post in the land.

## “Free burgers are part of the drivers’ payments for carrying McDonald’s ads.”

Reeling from a conviction for plundering city coffers in 2007 and so-so approval ratings, Estrada was having a hard time generating campaign funds. His campaign manager got the idea of tapping the three million strong tricycles in the country as his on-the-ground campaign promoters. His campaign met with the associations of tricycle drivers in voter-rich areas all over the country to convince them to be part of this strategy. Each tricycle driver was paid \$4 USD for each meeting.

It was not only Estrada who utilized the active presence of tricycles on the streets—candidates running for lower posts did too. Baguiringan said they were selective, however—they only agreed to advertise for candidates who have supported them. “We say no to those who didn’t do

anything for us,” he says.

For instance, he says they helped out Quezon City’s incumbent Mayor Herbert Bautista and his running mate, Joy Belmonte, as well as a handful of candidates seeking lower positions because

they assisted them organize their association.

Campaigning through public transportation was banned by the Commission on Elections (Comelec) in 2001, but the ban is only now being implemented. No one among the tricycle drivers wants to risk losing their moneymaker by violating the rule. Comelec spokesman James

Jimenez says that vehicles caught carrying campaign materials could be impounded if they don’t remove the ads after being given a warning.

So now the streets—at least those of Barangay South Triangle—are not filled with faces of politicians. They are, however, rich with moving ads, courtesy of the ubiquitous tricycles. Baguiringan’s passenger could very well be his client’s next customer.





**With many of its informal settlements crowded along canals, flooding presents a constant threat.**



# Slum Lab

## Manila's Quest to Build a Better Informal Settlement

**Kate Hodal**

From the second story of his lemon-yellow home in north Manila, Alberto Legarda Evangelista, 71, surveys the leafy neighborhood he has lived in for the past decade. Below the open-air veranda where he sleeps through the humid nights, a young mother is singing a quiet lullaby to her twins. Nearby, the shouts of teenage boys playing a game of basketball float over the chuckles of their parents, who are whiling away the midday heat with playing cards and sodas.

All of this would be a postcard of suburban idyll were it not for the fact that Evangelista lives in Manila's largest public cemetery, Cementerio del Norte, along with some 1,000 other families. Century-old tombs have been converted into stalls selling sachets of shampoo and instant noodles, flowered pathways into public washing stations, grassy knolls into doghouses. Car batteries power radios, karaoke machines and television sets; clotheslines are strung between crosses. The "home" Evangelista lives in is actually a mausoleum housing eight graves. He considers himself lucky—the breezy second story where the deceased's family pays their annual respects doubles as his bedroom. "Look at my view," he says, pointing his cigarette out towards the field of tombstones. He tells me this the strongest, safest home he's ever had.

Evangelista earns his keep watching over some 20-odd graves in the cemetery. But his monthly earnings are so negligible that he would never be able to rent a standard apartment in the city, a conundrum affecting an estimated 43 percent of Metro Manila's 13 million residents, according to 2011 [Asian Development Bank](#) (ADB) figures. As land within this bulging metropolis becomes increasingly scarce and expensive, housing must be found, built or cobbled together anywhere there's space—and that often means under bridges, along highways, in alleys, perched atop flood channels, or even among the dead.





For years, the local government has chosen to deal with slum-dwellers either by pretending they don't exist—famously building a fence last May to hide a sprawling slum ahead of a visiting ADB delegation—or by resettling inhabitants, often forcibly and in distant provinces far from employment opportunities, in sporadic efforts to quickly beautify the capital. But under a five-year, \$1.2 billion USD mandamos (mandate) from the Philippines' Supreme Court to clean up the heavily polluted waterways that feed into Manila Bay, the city is now relocating 104,000 families from the city's many estuaries,

Theresa Dauzo and her son in their home in New Erna.

tributaries, canals and rivers—and priorities have obviously changed. Instead of resettling these 500,000-plus inhabitants outside of Metro Manila, the government's primary focus is on moving them into on-site and in-city developments, a major departure from previous policy.

Other governments, like South Africa's, have also recognized the benefits of on-site slum development, where a recent \$3 billion investment to help 400,000 slum families by 2014 shows that policy has shifted from out-of-city resettlements to providing in-situ services and tenure security. But what's happening in Manila is, in many ways, much larger than that. A barrage of initiatives geared toward changing the city's relationship with its informal settlements reach far and wide—indeed, the city has become a living laboratory of slum solutions. Historically neglectful of (and often outright hostile towards) its informal settlers, Manila is now beginning to take innovative leaps of faith toward working through its

housing mess. As 70 percent of the Philippines' population is expected to be living in cities and towns within the next decade, the city, already bursting at the seams, can hear the clock ticking.

Possible solutions include NGO-led medium-rise resettlements on donated and foreclosed lands, community-managed mortgage schemes allowing for in-situ development, and private sector-funded relocation endeavors on entrepreneurial farms. All of these efforts spring from a blend of formal and



informal—the government has a stake in each of them, signaling a sea change in its willingness to try new ideas. As the CEO of [Habitat for Humanity Philippines](#) Charlie Ayco puts it: “The government has learned it doesn’t want to repeat the bad experience of relocating people in far-off places where they can’t earn any livelihood.”

### A Place in the City

In Metro Manila, where 16 cities and one town stretch over a giant flood plain, informal settlements squeeze into the tiniest of unused spaces. Crammed in between high-rise office buildings in the central business district of Makati, strung along the many freeways that bisect the capital, and hanging precariously from bridges, some of them boast improbable names like Paradise City and Sunshineville. They’re so ingrained in the urban fabric that an entire 1990s primetime sitcom was based on them: Home Along Da Riles (Home Along the Railway Tracks) centered around an impoverished family whose shanty shook every time a train roared past. Hugely popular, the show ran for over a decade and spawned a feature film.

While a billion people worldwide now live in slums, Manila’s situation is unusual: Many of its settlements are built on waterways, a sort of cardboard-and-corrugated-iron version of Venice. Highly prone to flooding during typhoons, these waterways are so clogged and polluted that floodwaters often have nowhere to go but up. (One [analysis](#) partially blamed 2009 Typhoon Ketsana’s two-meter-high swells on a lack of sufficient drainage). The new mandate, while resettling slum-dwellers in their own permanent homes, is also intended to accommodate new flood-mitigation plans, considered critical to the city’s safety.

One recent afternoon, I traveled from downtown Manila to the Tullahan River in Malabon district, where a collection of haphazard shanties built from cinderblock, wood and corrugated iron crowd the riverbanks. Sandwiched among a number of factories spewing their effluent into the gray water is New Erna, just one slum among hundreds marked to be cleared by 2015. There, I meet community leader Theresa Duazo, a plump 40-something woman with a bright smile. Inside the dark, three-meter-wide, two-story home she’s lived in for the past 30 years, Theresa holds her hand up to her collarbone to show me just how high the floodwaters reached during Typhoon Nesat. “The water was black and it smelled disgusting,” she says.

“We slept crowded together upstairs, and every hour my husband would take the bucket and sweep out the water, but it just kept coming in.”

Duazo’s 19-year-old son Zyren points to small cracks in the kitchen cinderblock to show me where the water entered. “There was nowhere for me to sleep during the last flood, because upstairs we already had the dogs and my family, so I stayed on the roof in the rain,” Zyren says, shaking his head.

Under the mandamos, the Duazos, along with the majority of New Erna’s other 100-odd families, will be moved to a new medium-rise building (MRB) just a 20-minute jeepney drive away. The project is a pilot led by the Philippines’ branch of Habitat for Humanity, involving six multi-story buildings that can accommodate 900 families. (Malabon district, where New Erna is located, is home to 18 riverways and 4,200 families affected by the new mandate, according to the [Foundation for Development Alternatives](#), an NGO working with Habitat to resettle people).

The plan is simple enough: The national government provides the financing for the move, the local government provides the land and the private sector and/or NGOs provide the construction. Once moved, families are expected to pay back the government for their new housing using a six-percent, 25-year loan. But the challenge involved in creating an MRB on a socialized housing package—limited to just 400,000 pesos (\$10,000 USD) per unit—is considerable, says Habitat’s Charlie Ayco. “We’re trying to create a template here, because the gray area is, how are we going to bring down the cost of construction [for these new properties]?” he says from his corner office in the Ayala district of downtown Makati. “If we can bring it down from the current 700,000 to 400,000 pesos per unit, then we can share that template with other players.”

The government expects (rather ambitiously) to move some 50,000 families by the end of May, when the rainy season begins. Ayco says this is impossible, as the land to move them onto still hasn’t been sourced. “Many local governments don’t have the land [for the project], so hardly any of the annual 10 billion peso funding was used in the first year (2011),” he explains. “Now we know that if the local governments cannot provide the land, then we have to help them find it.”



Habitat is fortunate that charitable individuals sometimes donate land for projects, as happened with this pilot in Malabon. But there’s another untapped resource that the NGO is now focusing on—foreclosed properties. “The bank would like to sell these properties, but whenever they want to advertise them, the potential buyer goes and sees that there are informal settlers occupying the land,” Ayco says. “The only way they can sell it is by driving out the settlers, which they don’t know how to do, or negotiating with them, which they are not equipped to do.”

This is where Habitat comes in, consulting with the settlers to buy the land from the bank itself. The NGO has now dedicated a whole team to this “new market” because, says Ayco, “It’s huge. And normally these banks don’t want to talk to the local governments because they want to deal with the private sector instead.”

Similarly large-scale resettlements have generally focused on one-story row houses. But in-city relocations have had another effect: With land at such a premium, medium-rise buildings are now seen as a way of maximizing family-to-land ratios. The higher-density structures are more environmentally friendly because they reduce both commuting and urban sprawl, according to the ADB, and the government has slowly but surely warmed to the idea.

“Our priority now is on-site relocation,” says Cecilia Alba of the government’s umbrella Housing and Urban Development Coordinating Council (HUDCC), which oversees the country’s housing needs. A petite economist who used to work in the president’s office, Alba cites in-city employment as a benefit to keeping people within the capital itself. “But we have not totally scrapped the off-city option... We also need to look at the affordability of those families.”

Affordability is a very real issue when families are expected to pay back the construction costs of their resettlement. Alba notes that a typical 40-square-meter row house costs about 240,000 pesos (\$6,000 USD) and includes land, whereas an MRB runs to 550,000 pesos (\$13,750 USD) and does not include land. But these estimates haven’t stopped the government from rolling out its own MRB pilot, Ernestville, a two-story, 12-structure site in Quezon City that will re-house some 200 families. An additional three more projects are in the pipeline, with an estimated delivery time of one

year, says Eduardo Manicio, vice president of the HUDCC’s social-housing loan agency.

Similar MRB projects, which critics often refer to despairingly as “tenement housing,” have been tried in the past, often ending up neglected, blighted and under-maintained. Alba concedes that this is a real issue, noting that the HUDCC’s chairman Jojo Binay—who doubles as the country’s vice-president—has mandated that these MRB’s turn out differently. ““Don’t just build these units,’ he said, ‘but make sure there is a mechanism for maintaining them.””

While many agree that land is scarce in Metro Manila, not everyone believes that MRBs portend a sustainable future. Father Norberto Carcellar, director of the [Philippine Action for Community-Led Shelter Initiatives](#), says such projects may just end up getting shelved. “In Asia, there’s no other space to go but up,” he explains from his base at the leafy St. Vincent’s Seminary in Quezon City, where posters of Jesus hang beside World Bank figures on urban development. “We say that the only earth that’s left is that left under your nails.”

“But the problem with MRBs is that they’re just like pigeonholes,” he continues, “and the cost of services is very high in terms of water, solid waste and, of course, power. We’ve already seen projects like these before ... and now they’re being demolished.”

The Duazos know that life will be very different once they move into their MRB unit. Money will be tight, with much of it going to paying off the government loan. And living in an apartment building will be a strange new phenomenon. But unlike many slum-dwellers who fight the government when they’re moved out (residents of Laperal started a riot when officials began demolishing their slum in 2011), New Erna’s residents believe the future is promising. “Of course I’m sad—I’ve lived here since I was a girl,” says Theresa. “But we won’t have to deal with the floods anymore, and that will be a relief.”

Buying In and Staying Put

Not far from Manila’s port and the old Spanish citadel known as Intramuros, there sprawls a 56-hectare slum home to dockworkers, tricycle drivers and a large contingent of naked children. A reclaimed swampland, the



neighborhood of Baseco has ballooned from 200 families in the mid-1980s to around 12,000 today, making it one of the largest slums in Metro Manila. It is also a quintessential example of people power in Manila’s history of informal settlements—indeed, it is a landmark example of on-site slum development.

The story goes back to 2001, when the ADB planned to develop the neighboring Pasig River. Faced with the eviction of some 1,200 Baseco residents and their forced relocation sites outside the capital, the community stood their ground. “We wanted to pay for the land because, according to the law, if there’s government land that hasn’t been used for 10 years, then the people living there can buy it,” says Jeorgie Tenolete, a long-time resident and community organizer.

We meet one humid morning at the office of Tenolete’s NGO, Kabalikat sa Kaunlaran (Your Partner in Progress), a community-empowerment organization that has worked in Baseco for decades. “When I first moved to Baseco in 1986, there was no electricity, no water, no roads, no schools and no market,” says Tenolete, a young-looking 42 year old in a striped shirt and flip flops. He finds a 2001 map to show how drastically the area has developed. “Look at this here—see how that was under water? Sometimes we’d use a boat to get around—all this was a swamp.” He points to the next map, drawn up four years later. “Look at these rows of houses here,” he says, still astonished. “Every day we get families coming in, so people keep building.”

Baseco learned quickly to depend on a strong network of community organizations to supply everything the government couldn’t, from microfinance loans to toilets and drinking water. It was Kabalikat that negotiated with the government to purchase the land under what would become a milestone 2002 presidential proclamation from then-President Gloria Macapagal-Arroyo. Families were given 32 square meters and 15,000 pesos (\$360 USD) with which to build their own titled, single-story row houses, many of which now tower (illegally) to three or four floors, some boasting flower-covered verandas and satellite dishes.

Such a scheme has been successful in other countries as well. In Peru, vacant, government-owned urban spaces were turned into formal land deeds under the Organismo de Formalización de la Propiedad Informal. But in

Baseco, of the 12,000 families estimated to live here, only one-third are legal and hold government-issued land deeds. The other 8,000 are squatters—Baseco is often the first place new immigrants to Manila come to find work. Their insecure tenure, however, means that they live under the constant threat of eviction and demolition, preventing them from wanting, or being able, to invest time and money in their housing.

The large mix of titled vs. non-titled residents means change here moves glacially, and depends frequently on the strength and capacity of the community organizations. In fact, says Tenolete, many of the more significant positive changes that have occurred here—the building of a high school and elementary school, the addition of health-care centers and the paving of some roads—can largely be attributed to Baseco’s chairman, Kristo Hispano, who in turn works with Manila’s Mayor Alfredo Lim to institute development. It is Hispano who regularly invites politicians into Baseco for tours, pointing out the unpaved roads, the crumbling edifices, the lack of medicines in the local pharmacy. “He says, ‘This needs to change,’ and it changes,” says Tenolete. Just a short walk from Kabalikat’s headquarters—past a wall splashed with the words “KRISTO THE ACTION MAN”—sits Hispano’s open-air “office”: two plastic chairs, a plastic table and a tarpaulin outside the main multi-purpose hall where the baby-faced 33-year-old barangay (neighborhood) chairman is holding his daily meet-and-greet. “Our main problem is that the barangay funds are just not enough,” Hispano confides. “The funds come from the national government but they’re based on population and income generation. And since there’s almost no income generation here, we don’t get much funding...Without the NGOs,” he adds, “life here would be really hard.”

Despite this, for some people, the devil you know is sometimes preferable to any change, no matter how “innovative.” Napico, an hour’s drive from Baseco, provides a reminder that one person’s solution is another’s unwelcome interference.

Napico is another informal settlement, yet this one has been developed in-situ using a community-mortgage program (CMP). The 42-hectare settlement of roughly 5,000 families was initially founded by revolutionaries from the “People Power” movement of 1986 that ousted the Marcos dictatorship. Today those former revolutionaries have gone from squatting to collectively owning their land through a CMP scheme that works like this: Organized



neighborhood associations negotiate with the government directly to buy the land they squat on, generally for a loan of 165,000 pesos (\$4,000 USD). The funds go towards land acquisition and site development, and are payable at six percent interest over 25 years.

Roseller Fortich, a smiling former revolutionary who was one of Napico’s first settlers and now heads one of its 15 homeowners’ associations, tells me that owning his own house is a huge departure from the “free life” he used to have before. “The benefit of CMP means that we can call our houses our own and not worry about demolition or eviction,” he says.

The CMP program has benefited some 250,000 slum-dwellers all across the Philippines since 1989, according to the government’s housing loan office. But here in Napico, not everyone wants in on the deal. Squatting, for all its hardship and unpredictability, is free, and many in Napico don’t want to exchange their rent-free, debt-free lives for a land deed. The result has been a legal situation whereby the community purchased all 42 hectares of land, but not every family was willing to pay for their share of it.

Fortich shakes his head as he outlines what’s happened since. “We’ve had no choice but to sue those families—they want the free land, but they’re not willing to buy it,” he says as we tour the sunny neighborhood, pausing briefly in front of a shanty near Fortich’s home. “It’s tricky because some of them still live here”—he motions to the shack behind him—“and we’re fighting them in court. We want to take their land and turn it into community-purpose buildings.”

The community has already won one court case using pro-bono legal help from a local Napico resident—it demolished the shanty in question to make way for a new multi-purpose hall. And while it might seem odd that a community that once squatted together would suddenly turn its back on those who preferred to continue squatting, Fortich says the economics demand it. “None of us can get our own individual land titles until everyone pays back their share of the loan,” he says. “That is the fallacy of the CMP.” It’s also a reality check: Large-scale change won’t come to Manila easily. Even guided by the best of intentions, some communities will be strained and even fractured as the city attempts to break with its past.

Nevertheless, Fortich adds, the CMP is a win-win for Napico. “The CMP adds value to our property and has given people the chance to rent out the house,” he says, “or move abroad, or into the countryside.”

Back to the Land

The countryside is where advocates for the urban poor generally fight against being sent, so it’s surprising that one of Manila’s most eye-catching slum solutions is taking place there. So far unable to stem the tide of migrants coming into Manila from outside provinces, NGOs, government authorities and even the private sector are now wondering whether it’s possible to reverse it. The most radical of such approaches pivots on the premise that space in Metro Manila is a finite resource and that, one way or another, some Manilans are going to have go back to the land.

In the past, slum-dwellers have been shipped out to the countryside with no prospect of work. The new entrepreneurial agriculture schemes instead put a clear focus on economic development. And they do it in a way that attempts to work with a rural setting, rather than ignore it. Interested in how such a pilot might work on a larger scale, I joined a caravan of academics to tour **Enchanted Farm**, a self-contained experimental settlement for former slum-dwellers and the most buzzed-about effort around Filipino settlement solutions today.

Accompanying me was Haydee Malubay, a PhD candidate at the University of the Philippines’ School of Urban and Regional Planning; her daughter, a university student in landscape design; and architect and self-declared “ecopreneur” Mark Roeland De Castro.

Enchanted Farm is built on a former sand quarry in Balucan, a province roughly two hours’ drive from Manila’s central business district, and can really only be described as a 14-hectare hippie commune without the hippies. It’s a prototype for slum resettlement that changes not only the residents’ location, but the very economics of their informal economy.

The brainchild of **Gawad Kalinga** (GK), a faith-based community-development organization that works in slum-upgrading initiatives all over the Philippines, the farm sees 50 families from various informal settlements entering into a new type of paradigm—one whereby social entrepreneurship and farming





go hand in hand. Harvests are shared. Workshops on business development are shared. Even the two hectares of land donated to the families to build their 50 homes was shared. (Top financiers for the \$702,000 USD project included Hyundai and Shell). In fact, in the truest sense of communal living, those who currently call Balucan home had to submit applications and attend “value” sessions to see if they qualified. “No drinking, no beating, and, of course, honesty and integrity are essential,” explains Joni Gail Morales, GK’s attractive, fast-talking farm coordinator.

“Like a commune, we are actually trying to shift mindsets, to create a culture where the community comes from different areas but then behaves and thinks as one family,” she explains. “It’s the whole culture we want to correct, the ‘begging culture.’ If you want to get out of your poverty, you have to work hard for it.”

The project has attracted a wide array of interested parties, from university students and organic foodies to businessmen and city planners. Architect

Boys in the Agricoool program planting at GK Enchanted Farm.

Castro, who is helping to build and develop an on-site community “Life Bank”—a localized version of the Grameen Bank that started in Bangladesh and has since spread worldwide—talks excitedly about the farm’s opportunities.

“The idea is that the farm will become a sort of Silicon Valley of social entrepreneurship and agriculture,” he says, at times sounding a bit overly optimistic about the scheme. “Nobody else wanted this land—they believed it was haunted because it was a quarry and dumping ground [for dead bodies]. But what’s most important is how GK was able to transform something dark into a productive space, the idea being that if you can do it here—in a place that’s inaccessible, a former sand quarry—then you can do it anywhere in the Philippines.”

If successful, Enchanted Farm (its name is a play on its “haunted” past) will be the first of 24 similar sites across the nation in a GK-led effort to eradicate poverty for 5 million families by 2024. But even here it’s easy to see its challenges. Accessible only via a series of freeways, and then a number of smaller lanes where little alleys housing brightly painted homes bask in the sunshine, it is far removed from markets, culture and transportation (unless you have your own personal vehicle). Morales concedes that some of the men who came to Enchanted Farm have abandoned farming in favor of finding work in Manila, thereby trouncing the notion of the farm as a fully self-sustainable, economic utopia.

But it takes time to turn former urbanites into farmers, stresses Morales, who points to the success of the business side of the farm: The 20-odd start-ups that pair farm families with local entrepreneurs to create marketable ideas. The most successful product to date has been Bayani Brew, an iced tea made from farm-grown sweet potato and lemongrass. The recipe was created by former slum-dweller-turned-farm-resident Tita Linda, and now brings in around 450,000 pesos (\$10,900 USD) in annual sales. (Start-up profits are shared equally among all farm residents, fulfilling the communal ideal but not necessarily stoking competitive enterprise).

In many ways, it seems too good to be true. And not all residents are living the idyllic lifestyle the farm presents itself as providing. Resident Rosalie Barite, 37, is a petite woman who once lived in a Baseco shanty and earned



her money selling second-hand clothing for 15 pesos (40 cents) apiece. Now she spends her mornings selling the vegetables her husband grows, and her afternoons making chevre at a start-up gourmet cheese shop on the farm, Gourmet Keso. She shares her two-room house with her family of eight. Their daily income is 300 pesos (\$7.25 USD) per day—hardly enough to eat, she says, but just about manageable. “When we first arrived there was nothing here. We’d grow rice and vegetables—anything we could,” she says while cradling her young baby. “You have to work hard to be able to put food on the table.”

Families like the Barites are a prime target for GK’s ambitious projects, notably the Agricoool program, which aims to rebrand agriculture as a worthwhile economic opportunity. The scheme targets the farm’s youth—putting boys in the fields, girls in basket-weaving courses—and doles out a monthly allowance to encourage kids to water and weed when they come home from school. “What we’re doing here is shifting mindsets, concerns and priorities,” Morales explains. “We’re really trying to teach them to love farming, to create the next generation of Filipino farmers.”

It’s easy for NGOs to wax poetic about their projects—when Morales at one point says that the farm is about “growing people, not just growing businesses,” she sounds a bit like a banking advertisement. And it does beg the question: Is this really something that could work long-term? The HUDCC’s Alba seems to think so, as the government is also investing in a new pilot scheme to send slum-dwellers back onto farms. That program, called Balik Probinsya (Back to the Countryside), will be rolled out in two communities this year, and will represent a major departure for the Philippines’ government, Alba says. Refocusing economic opportunity from Metro Manila back onto the land, it could eventually recategorize the Philippines as a rice exporter rather than just a call-center capital.

“Unlike before, when we tried to resettle people from Metro Manila into off-city areas and there was no livelihood [for them there], with this concept what we’re trying to provide is land so they can farm with all the support [they need] from the Department of Agriculture and Agrarian Reform, which will provide them with seedlings and the skills and facilities,” she explains.

Such pilots may be innovative, but they are still small-scale. They also push

against the global trend of urbanization, and the belief that cities are the best poverty-alleviating mechanism the world currently has. Perhaps most importantly, they are based on the notion that Metro Manila is now a “game over” option for slum-dwellers, as there is no land left for them to live on. While at the seminary, I ask Father Carcellar whether he thinks moving slum-dwellers out of the city and back onto the farm is really a step forward. He shakes his head and retorts pointedly, “Do you believe that? I don’t.”

“Urbanization is really an anthropological and sociological phenomenon—it’s not just about economics,” says Carcellar. “Backyard farming projects didn’t work out [in the past] even if the settlers were used to farming, because they came [to Manila] to have access to services. And that’s not going to change. We need to find ways to make the city work.”

Back at the cemetery, I watch Evangelista as he takes one last drag on his cigarette. Technically, he and the 1,000 other families that live among these tombs should have been evicted and relocated long ago. But many of them, like Evangelista, have ad-hoc “deeds” from the families of the dead allowing them to live here. In many ways, this itself is a kind of in-city resettlement, and of the most informal sort—a handshake agreement between key stakeholders to put to more productive use a piece of land that is being, shall we say, underutilized by its permanent residents.

“I often think, what would have happened if I had just finished school?” Evangelista says in a low voice as he navigates the steep ladder back downstairs into the main mausoleum. “I only made it to the third grade. Maybe I would have had a better job, been able to live somewhere else.” As he knocks on the solid mausoleum walls he says, to no one in particular, “This is the best house I’ve ever lived in.” For Evangelista, relocation is not on the table—in a deeply personal sense, he’s very much at home. “My family is buried in this cemetery,” he says quietly, “and I don’t plan on going anywhere else myself.”





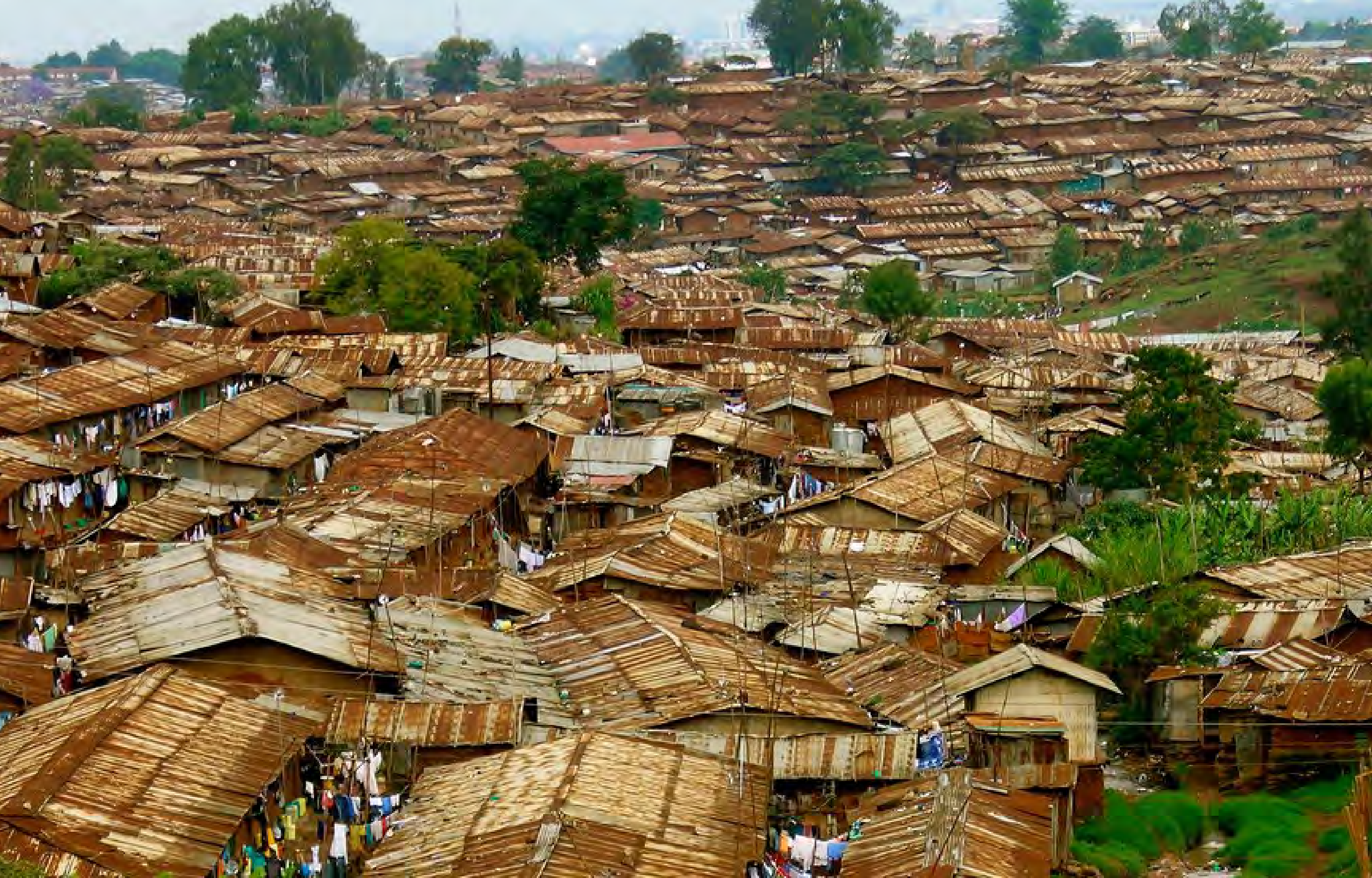
# Nairobi, Kenya



Nairobi's informal realm is one of the most robust in the world. The vast majority of its population growth takes place in its slums, and every year informal work grabs a larger share of total employment. But while its informal workers and settlements form the base of the city's pyramid, this model also presents significant problems, like a shrinking tax base and a dearth of skilled jobs.











**Annual floods and a lack of potable taps mean informal settlers are often either searching for water, or trying to escape it.**





**Waste-picking provides a steady if dangerous source of employment to Nairobi's informal workers.**





**Community-run schools staffed by volunteer teachers are vital cogs in the education system—and often keep running during formal teachers' strikes.**











**All kinds of food can be found in every corner of Nairobi's slums, from fresh produce to hot meals at sit-down restaurants.**



# A Central Business District Trades Its Corporations for Car Washers

Sam Sturgis

The modern, eight-lane Thika Superhighway, funded with help from the Chinese government and opened with pomp by Kenyan President Mwai Kibaki in November, is being billed as a godsend to Nairobi’s economy, providing a quicker route to the suburbs and streamlining access to important neighboring markets in Ethiopia. With a price tag of over 30 billion Kenyan shillings (roughly \$350 million USD), supporters have hailed the highway as an important step toward middle-income status for the country. But for Francis Njoroge, one of Nairobi’s numerous informal workers, it’s not the new artery’s transnational business potential he’s looking forward to—it’s the dirty cars.

Stationed alongside one of the new highway’s off-ramps in Nairobi’s Central Business District, Njoroge scans the traffic for vehicles in need of a wash. He’s

not alone here — wooden tables filled with everything from bras to hairpieces line the off-ramp, with eager hawkers, repairmen and car washers waiting patiently behind them. This is one of the first things drivers entering downtown Nairobi see these days, and in many ways, it speaks to the larger economic shifts that are changing the face of Nairobi’s CBD

The construction of modern infrastructure projects like the Thika Superhighway has initiated a migration of sorts that’s turning the Nairobi metro region inside out. Big companies are leaving the city’s central business district, relocating to newly accessible suburban neighborhoods; the city’s informal workers, meanwhile, are flocking in. This has had the effect of turning the CBD into a stop-over point for commuters living in residential areas on one side of town, whose offices are now relocating to the other. While the corporate flight may not be good for Nairobi’s downtown overall, it makes the area an ideal location for people like Njoroge, who sell goods and services to professionals as they pass through between work and home.

“The City Centre is no longer an ideal location for businesses of our stature,” explains Judith Odhiambo, corporate communications



manager for Kenya Commercial Bank (KCB). Citing “security concerns, congestion, and vehicular and human traffic,” KCB has decided to relocate to Nairobi’s Upper Hill neighborhood by the end of this year. As recently as the late 1990s, there were hardly any big businesses in the residential enclave of Upper Hill. But projects like the new superhighway and commercial rezoning have turned it into refuge for some of the city’s most important companies. Once completed, KCB’s new 21-story headquarters will be Nairobi’s eighth-tallest building, located far from what Nairobi professor Fred Iraki calls the city’s “business suicide” zone.

For many of the CBD’s informal workers, however, operating in the business district — historically one of East Africa’s most important — is a profitable enterprise, relatively speaking.

“Business isn’t bad,” says David Khasesa while putting the final touches on a metal necklace and simultaneously waving to two passing European tourists. In the shadow of the Hilton Hotel —it, too, surrounded by Nairobi’s informal matatu mini-buses — lies the open-air Maasai Market. A parking lot during the week, the market has become a hotspot for informal craftsmen and women who do quite well selling and trading items in the lot during the weekend. Some

The neighborhood of Grogan in downtown Nairobi is well known for its informal repair shops. City officials worry that the rising tide of informal businesses is driving bigger companies away.





Street vendors often shuttle through the CBD depending on the time of day and the presence of City Council officials.

necklaces and blankets can fetch between 1,200 and 1,800 shillings (\$14–\$20 USD), more than the ones sold by most of the vendors in the city’s informal settlements. The trend has city officials concerned that the CBD is becoming overrun by informal workers, with each new vendor making the district a little less appealing to big companies. At the Maasai Market, a weekly fee of 50 shillings (60 cents) paid by each vendor keeps the market free of harassment from the City Council. But vendors who can’t afford that, like Kathryn Muthoni, find themselves on the run. As we’re speaking, Muthoni keeps one eye on her wooden stand and the other on the lookout for trucks emblazoned with the green-and-yellow City Council logo. She finds

work in the CBD profitable, but unstable. Electrical outlets, phone chargers and sunglasses are spread strategically across a weathered bed sheet — presentable to passing customers, yet easy to quickly bundle up if a City Council official comes by. “Just yesterday I had to grab my things and move,” says the single mother, adding that it’s the only time she ever loses her items. Nairobi’s Star newspaper recently reported that in 2009, the Westlands and Upper Hill neighborhoods received more than half of all commercial development permits approved by the city government. The CBD received only 15 percent. Additionally, as pointed out in a 2010 report by the International Society of City and Regional Planners (ISOCARP),

Nairobi’s rapid population growth isn’t going to slow down any time soon. Over a million more people are expected to move to the Nairobi Metropolitan Region in the next four years, most of whom are likely to seek informal work in a business district that’s already struggling to keep its appeal to corporations alive. But the suburbanization of Nairobi’s big companies seems to be only accelerating, and more and more informal workers are setting up shop in the CBD. “End of an Era” was the headline in the Saturday

Nation newspaper on September 19, referring to the decision by the Nairobi Securities Exchange (NSE) to leave the Central Business District for Westlands. It was arguably the most glaring shift yet in the CBD’s economic pulse, and seemed to signal the beginning of a new age for downtown Nairobi, one where the trade of second-hand clothing outpaces the trade of stocks. “Most of us still move market to market,” says one of the downtown street vendors. But Nairobi’s CBD seems poised to become a different market altogether.

Informal craftsmen and traders have found a sense of continuity within Nairobi’s CBD.



Sam Sturgis

Sam Sturgis



**During election season, residents of Nairobi's informal settlements are courted by politicians who see them as a valuable source of votes.**

**POWER  
TO THE PEOPLE  
I WILL BE THE CHANGE  
I WANT TO SEE  
MY VOICE, MY VOTE  
OUR FUTURE**

**NEW  
KENYA  
JUSTICE  
IS OUR**

Elections in Nairobi in 2007 spurred weeks of violence in the city's slums.

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# Slum-Based Radio Stations Pioneer an Underserved Media Market

Sam Sturgis

As I climbed the steps of building “X9,” one of the tallest structures in the Ayany (eye-YAH-nee) neighborhood of Kibera, I began to hear a rumbling sound, growing louder with each floor I ascended. At the entrance to Pamoja FM (“unity” in Swahili) I found a small generator desperately trying to kick Kibera’s only radio station back to life — an inevitable contingency plan in a place where power failures are a regular occurrence.

Operating since 2007, this small studio has become Kibera’s version of NPR, broadcasting 24 hours a day and catering to a monthly listenership of over one million people. When violence broke out in the sprawling slum following the disputed 2007 elections, “Even mainstream media were covering the events through us,” proudly notes the station’s founder, Adam Hussein.

Few people have seen more of Kenya than Hussein. During decades of work as a photojournalist for Kenya’s most widely read newspaper The Daily Nation, he shot everything from the arid landscapes along the Somali border to the Great Rift Valley extending all the way up to the Arabian Peninsula. But after additional postings in neighboring Uganda, Tanzania and Zanzibar, “I decided to come home,” he says with a smile. “Kibera is my home and I found the people were lacking information.”

So he founded Pamoja FM (as his “retirement,” he laughs) and now Hussein, as the station’s managing director — along with his team of volunteer journalists, radio hosts and editors — represents the impressive media market that’s emerging in Nairobi’s informal settlements, home to more than half the city’s population.

“It [informal settlements] is a big, big market,” explains Felix Asoha, Pamoja FM’s deputy news editor. He points out that major media outlets often fail to present the news in a way that’s accessible to the residents of slums. For example, unlike national and citywide radio stations that may charge up to 40 shillings (46 cents USD) for a listener to call-in, Pamoja’s listeners pay only 1 shilling per call or SMS message. Whether they



want to talk politics or request their favorite reggae song, “It remains affordable for the community,” says Asoha. “They are proud of their radio station. They know that if they send us a message it will be read.”

While slum-based radio stations are giving residents of Nairobi’s informal settlements a new voice, they’re also having a profound cultural effect on the city at large. Billed as “Your Official Sheng Station,” Ghetto Radio has emerged not only as the source of news and music for Eastlands — a neighborhood that’s home to informal settlements dating back to the colonial era — it has

also become the city’s leading broadcaster of Sheng, a slang-based language that’s a combination of Swahili and English and originated among young slum dwellers in Nairobi during the 1970s.

“We were the first ones to dare broadcast in Sheng and accept the slang,” says Julius Owino, the managing director of Ghetto Radio, which has a monthly listenership of about 1.2 million and is Nairobi’s second most popular radio station during Tuesday and Friday afternoons, according to a 2012 survey. “Now even official cooperative advertisements and brand communication are in sheng.”

At Pamoja FM, Chris Olwehyi (a.k.a. MC Jahill) and Julius Kasyoka (a.k.a. Ras Juli) host “Pass the Mic, Speak your Mind!” a weekly reggae and community issues program.

Sam Sturgis



## “Slum-based radio outlets may play crucial roles in preventing or managing election-related violence.”

With only one week remaining until Kenya holds its presidential elections, radio stations like Pamoja FM and Ghetto Radio are aware that their responsibilities go beyond simply providing local news and music. In areas of significant marginalization and instability — the areas where these stations’ primary listenership resides — slum-based radio outlets may play crucial roles in preventing or managing election-related violence.

“The people who will carry machetes and stones or other weapons are the youth, who are our core listeners,” says Owino, a responsibility that prompted the station to run a five-hour “Vote 4 Kenya Vote 4 Peace” music program each Saturday morning.

Likewise, aspirants vying to be Kibera’s next MP, as well as Nairobi gubernatorial candidates, have been subjected to Meet the Press-

style questioning by journalists on Pamoja FM. In a neighborhood where TV and Internet access continue to play second fiddle to the radio, these in-depth interviews are the likely best opportunity many Kibera residents will have to vet those seeking political office.

“Callers are always asking candidates on our shows, ‘What are you going to do if you lose?’” says Hussein. “They don’t want to go back to the ’07-’08 violence,” a period that witnessed over 1,000 people be killed across the country.

When I left Pamoja’s studio, it was quieter than when I arrived. The generator had switched off, signaling that Nairobi’s largest slum had regained its voice. And just in time — with only seven days until the neighborhood heads back to the ballot box, residents are hoping that its broadcasts will help keep the pulse of Kibera steady.

The studio at Kibera’s only radio station is small, but the influence of its broadcasts is felt far and wide.

Sam Sturgis





# The Improvisers

## Nairobi's Youth Confront a Future with Few Formal Jobs

Abigail Higgins

Photography by Abigail Higgins and Jonathan Kalan

"There has been tremendous progress," Daniel Mutua tells me, looking every inch the rising businessman in his neatly pressed khakis and light blue button-down shirt. He greets me on a hot afternoon in early March and presses a business card into my hand: "Next Level Events: Events with a difference." "I used to be the receptionist, the accountant, the salesperson, the technician," he grins. "But now I've hired people to do all that."

We're in Mutua's cluttered office, sitting on a row of seats that have been removed from the back of a matatu, the ubiquitous private vans that provide public transportation to most of Nairobi. Two dreadlocked young men are hunched over laptops in the corner. One entire side of the office is piled with audio speakers, projectors and boxes labeled Samsung and Dell.

Mutua, 26, is the founder and CEO of his own small informal entertainment business, an enterprise he's been building from the ground up for the past six years. His company provides equipment for weddings, political rallies, corporate parties and other events throughout the city. As such, Mutua often operates in the Nairobi's formal realm, a side of the city that might otherwise be closed off to him. While older generations of Kenyans continue to hope that their sons and daughters find formal employment, those sons and daughters are becoming disillusioned with their chances—and rightly so.

"If you look at life in Nairobi, things aren't very certain," says Mutua with notable understatement. "You might have a job today, tomorrow you might be unemployed."

Such is life in the capital city of East Africa's economic powerhouse. But the burden of unemployment isn't spread equally in Nairobi—it rests disproportionately on the shoulders of the youth. Due to demographic shifts that have created a massive youth bulge, today one-third of the country's





population is between 18 and 34 years old—far more young people than there are jobs to support them, according to the [United Nations Development Programme](#) (UNDP). The situation grows worse every year: According to the World Bank’s Kenya Economic Update, while 800,000 youth reach working age annually, only 50,000 new formal modern-wage jobs are created. It’s because of this imbalance that 80 percent of the country’s 2.3 million unemployed are between the ages of 15 and 34.

Faced with this grim scenario, Nairobi’s youth are flooding into the informal sector, which, in 2011, created six times as many new jobs as the formal sector

did. For youth like Mutua, the informal sector is a godsend—its lack of regulation and taxes enables young entrepreneurs to attain a degree of prosperity outside of the formal economy. Indeed, businesses like his, with staffs of employees and ambitious expansion plans, could uplift the country as a whole, creating jobs that the formal realm has failed to generate.

But for young Nairobians who don’t possess the innate savviness of a Daniel Mutua, much informal work remains an unskilled, low-paid, day-to-day grind. For these young people, what’s missing is a system that cultivates success in the informal realm: Educational institutions geared toward the informal sector, and government programs that reflect Kenya’s current economic reality.

Such initiatives have emerged only gradually and sporadically. In 2006, the Kenyan government launched the [Youth Enterprise Development Fund](#) (YEDF), which provides training and seed funding for young people to start their own businesses. And this year, the Technical and Vocational Education and Training Act was passed, aiming to expand and improve the country’s system of vocational institutions, which impart practical, entrepreneurial skills.

But as of now, the percentage of Kenyan workers with a formal job stands at about nine percent, down from 13 percent in the early ’70s, a trend that will probably continue. Despite the country’s steady economic growth, the UNDP says it’s unlikely that the number of formal jobs will increase significantly in the near future. For Kenya to succeed, it will need more Daniel Mutuas—lots of them. That means creating the conditions necessary for more young people to pursue that destiny. At the moment, an informal economy fueled by young entrepreneurship looks like the country’s best hope.

### Natural Born Entrepreneurs

Bridget Achieng is a young woman you notice.

The day I met the young designer she wore long, fake eyelashes, bright blue skinny jeans and a skin-tight, gleaming white blazer. Tattoos crept from beneath the jacket, and jewelry dripped from her chest. At 23, Achieng has built a fashion empire in Nairobi. Her clothing and jewelry have been showcased at Fashion Weeks around East Africa, and she dresses some of



the country’s biggest media personalities. For two seasons, she styled all of the contestants on East Africa’s version of American Idol, a smash-hit TV show called Tusker Project Fame.

“This was always a passion,” she says. “I used to collect things when I was young and put them together. When I’d wear them, everyone would say, ‘This is so dope, this is so dope. If you don’t want to give it to me then sell it to me.’”

In her shop in downtown Nairobi, chunky gold bangles compete with oversized pendants for customers’ attention. Neon-colored dresses and vintage sunglasses dangle from the ceiling. Achieng makes about two-thirds of the clothing and jewelry herself; the rest she has friends bring from abroad or finds while scouring Nairobi’s many second-hand markets.

“I love what I’m doing right now. I thought it was going to take me a long, long time, but it happened so fast. I come from a very humble background,” she says, dragging out verrry for emphasis.

You wouldn’t know it from watching her interact with Nairobi’s well-heeled citizens, but Achieng grew up in Kibera, the city’s largest informal settlement. At 17, she was expected to marry an older man she didn’t know. Instead, she got a job as a housekeeper and moved into a room in Kibera for \$15 USD a month. A couple years later she got a new job assisting a woman at a law firm. It paid \$50 USD a month, and the woman paid for her to take classes to study hotel management, which Achieng hoped would lead to steady employment. But even having completed high school and some vocational classes, she still couldn’t find a formal job. “In Nairobi, you have to know someone who knows someone to get a white-collar job,” she says, “or you have to pay someone to give you a job.”

Meanwhile, on her way to church every Sunday, she would walk through Toi Market, the bustling hub of Kibera’s informal economy. It’s a place where spidery canopies wrought from old burlap sacks cast shadows over endless stalls of merchandise. T-shirts that once stocked the shelves of H&M and Old Navy dangle from wire hangers. Plucked from crates of donations from the West, they have failed as charity but succeeded in creating jobs for those who resell them.

Achieng was inspired. She took her life savings of \$60, bought some supplies and started making jewelry out of her bedroom. Then she would walk through upper-class Nairobi neighborhoods and stop anyone who she thought could get her a sale. Slowly, she earned repeat clients. As word began to spread, invitations to fashion shows arrived in the mail. Then Tusker Project Fame caught wind of the girl who was dressing celebrities out of her tiny bedroom in Kibera. “The told me that my jewelry was so unique and good for stage performance because it was so big and bold,” she says. “They had been auditioning stylists for a week but they hired me on the spot.”

A year ago, Achieng opened her shop in downtown Nairobi, now a full-fledged member of the fashion economy. She moved herself, her mother, three of her siblings and three of her cousins to a safer neighborhood on the outskirts of Kibera (and into a home that has space for her 300 pairs of shoes). She fully supports all of them and has even hired her mother, who is trained as a tailor, to make clothes for her.

It’s the kind of Cinderella story that generates magazine pieces like this one. But even though Achieng’s stratospheric rise makes her an outlier, her business development holds a lesson about the potential percolating in Nairobi’s informal sector.

The UNDP calls outfits like Achieng’s “business household enterprises.” (They’re also often called “non-farm household enterprises,” or NFHEs). Like Achieng’s early efforts, these businesses often have no fixed location and don’t pay taxes. By the World Bank’s definition, “They consist of self-employed (or own account) workers and unpaid family members engaged in non-farm business activities at the lower end of what is often characterized as micro, small and medium enterprises.” NFHEs make up a significant portion of Kenya’s economy. About 1.7 million families owned at least one household enterprise in 2004/05, and a little more than 230,000 owned more than one, meaning that one in every four households owns at least one enterprise, making such businesses responsible for about five million jobs in Kenya, according to the UNDP.

These enterprises offer huge potential to Nairobi’s young people, who can make up to seven times more money running one than they would in a temporary, transient, unskilled informal job. Young Kenyans are increasingly



recognizing this and taking advantage of it—today, one-third of household enterprises in rural areas and half of household enterprises in urban areas are owned by young people.

This is happening at a critical moment. Kenya is urbanizing fast: Its rural population has fallen from 90 to 70 percent since 1950 and is expected to drop to 50 percent by 2050. This is the moment in a country’s development when such enterprises can most dramatically boost an economy: “Nonfarm household enterprises are... most important in the period of transition, when agriculture is declining in performance but before the formal sector becomes established,” according to a 2002 World Bank working paper.

As such, the Kenyan government and its development partners are taking the potential of these enterprises seriously. “The government has come up with several measures to try to expand young people’s opportunities in the informal sector,” says Benson Muthendi, the public relations officer for YEDF. He notes efforts “such as the rehabilitation of vocational colleges, the expansion of tertiary education... and the Small and Medium Enterprise Fund and the Youth Enterprise Development Fund” as critical efforts in supporting the trend of youth entrepreneurship.

YEDF is probably the most prominent of these initiatives. Part of the Ministry of Youth Affairs and Sports, it gives extremely low-interest loans to young people to start small- and medium-sized enterprises. Between the ages of 18 and 35, these are people who are often shut out of the formal banking system.

“Our goal is to change young people from being job seekers to job creators,” says Muthendi. To complement its loans, the fund also provides mentorship, entrepreneurial training and links to larger-scale enterprises.

“By 2012 it had reached 158,000 youth enterprises and... it has also trained slightly more than 200,000 in youth entrepreneurship and assisted about 1,800 young entrepreneurs to market their products and services,” says Dr. Jacob Omolo, a lecturer in the Department of Economics at Kenyatta University who has also worked as a consultant for the Kenyan government and the International Labor Organization (ILO).



The Small and Medium Enterprise Fund, formally known as the Fund for the Inclusion of the Informal Sector, is another effort by the Kenyan government to exploit these opportunities. Launched in 2001 by President Uhuru Kenyatta when he was still Minister of Finance, the Kenyan government partnered with several major Kenyan banks to make credit more readily accessible to household enterprises.

Eighty percent of Kenya's unemployed are between the ages of 15 and 34.

When the fund was launched, Kenyatta wrote in *The Star*, a Kenyan newspaper, that “the Government recognizes the critical role that small and micro enterprises play in the development agenda. The Government also acknowledges that a significant barrier to the growth of MSEs, most of which are owned by the youth, is access to affordable credit...The Fund, therefore, aims to meet the twin objectives of addressing youth unemployment and





encouraging growth of micro and small enterprises (MSEs) as key drivers of economic growth and development.”

Bridget Achieng in her shop.

But throwing funding at a population that hasn’t been prepped to properly use those funds speaks to another challenge Kenyan youth face—one that starts years earlier, before small businesses are even a glimmer in their eyes.

The Education Gap

If you’ve ever been to raucous Kibera, you might be surprised to learn that it has a quiet side. You’ll find it at the end of the main road, just before the tin-roofed structures drop off into the greenery that used to run thick in this area. Nestled into intricately carved hedges, a carefully painted menu sits on the side of the road marking the spot where Koor Osman has carved out his own little chunk of the informal economy.

At KO Restaurant, Osman directs his ten employees and chats with his customers. Some lounge on the outdoor veranda, enjoying tea and coffee in the mid-morning sun, while others rush through, grabbing mandazi (doughnuts) or chapati (fried flatbread) on their way to work.

Osman’s round, ruddy features and easy smile don’t scream “cunning entrepreneur,” and Osman never really pictured himself as a businessman either. And yet, he laughs, “I’ve never been ‘employed’ in my entire life.” He completed primary and secondary school, and went on to study travel consulting at a small college that he thought would lead to a job selling plane tickets at a travel agency.

“We had to learn all of the capitals around the world and the airlines that flew to them. I still know most of them,” he says. “Rome, Italy. Berlin, Germany. Oslo, Norway... I was watching a movie the other day and they mentioned being in Bogota, and immediately I knew that they must be in Colombia!”

But despite liberally distributing his resume and talking to everyone he knew in the industry, Osman searched for two years without ever finding so much as an unpaid internship. By 23, with a wife and child, he was becoming desperate to make ends meet. So he rented a popcorn maker and started selling small bags on the side of the road for 10 cents apiece.

“Small business in Kibera hasn’t really been targeted by the government to pay taxes so they’re really making money,” he says. “I know people with really small businesses who are making a lot more money than they would in the formal sector.”

With time, he saved up enough money to buy his own machine and started paying younger boys in the neighborhood on commission to sell his popcorn for him. Soon after that, he opened a small roadside stall selling French fries. The fry stand became a store front, which grew into a full-blown restaurant whose menu he expanded every year. Now he has over fifty customers per day and a successful catering business that serves weddings, special events and workshops for local and international non-profits.

Osman dreams of expanding his business to additional locations, and is exploring other markets. He tells me he’s considering setting up a sort of mini gas station in Kibera where he would sell petroleum for motorcycles and household use.



“I stopped even thinking about sending out my CV,” he says. “If somebody told me to send out my CV now, I wouldn’t do it... Within a very short time I’ve achieved a lot of things I don’t think I would have in the formal sector.”

But the reality is, not everyone is a natural born entrepreneur like Osman and Achieng, and it isn’t laziness that blocks most young people from starting up a successful business. There’s a yawning education gap that leaves young middle-class Kenyans floundering for years looking for formal employment, and lower-class Kenyans stuck in low-wage, unskilled informal jobs.

While Kenya’s population growth has slowed and its economy is growing steadily, the UNDP report says that “even under reasonably optimistic expectations, regarding growth and employment creation, the mix of jobs will not dramatically shift towards formal jobs by the year 2030.” The Kenyan educational system, however, continues to churn out young people ready for formal employment, equipping them with briefcases full of diplomas and accreditations that do them little good.

“There’s no [formal] employment in Kenya,” says Osman. “People are highly qualified—they have their diploma but they can’t find a job... I’ve met many people who have degrees and even master’s, and they’re not employed.”

This isn’t entirely true—unemployment rates are relatively low for college graduates. But that’s only a small fraction of the population, and those who only make it through primary or secondary school are hobbled by an outdated and externally imposed system that holds little relevance in today’s Kenyan economy. “When you get down to it, the gist of the problem is the education system,” says David Maina, a consultant at the Dutch development organization **SNV** and the former head of enterprise development and linkage schemes at YEDF.

This system was put in place by the British colonial government and designed for a population that would continue school through a four-year university. Job-specific training does not come until late in secondary school or college, and even then, it’s usually training for the type of white-collar employment that British youth would have encountered in the United Kingdom.

Reforms have been attempted, the most notable of which was former President Mwai Kibaki’s decision to make primary school **free of charge** to all Kenyans in 2003. Once that happened, primary school enrollment doubled, and while these schools remain overcrowded and strained for resources, 92 percent of Kenyans are now able to enroll—a noble effort, indeed. But these numbers drop dramatically when it comes to secondary school, with only 24 percent attendance, and even more when it comes to higher education, with only a two percent attendance rate.

Even students who make it beyond primary school are often poorly served. The public system hasn’t evolved much since colonial times and still relies on techniques like rote memorization, hardly preparing students to be the innovators that the informal economy demands.

“There’s definitely a problem with the quality of people coming out of the education system. I have been involved in hiring people and quality of applicants is a problem,” says George Waigi, a national program coordinator at the ILO. “If you hire someone, they want you to give them a template to work off of. There’s no ability to think outside of the box.”

What’s more, even profitable inside-the-box abilities are culturally discouraged—skills that might help a young man or woman create a nest egg in a country where 14 percent of formal jobs (and an additional 1.4 million informal jobs) are in manufacturing. Kenya has over 700 vocational institutions in the form of youth polytechnics designed for students who do not have the finances or skills to move onto secondary school and complete the education needed to have a shot at formal employment. But white-collar employment remains the yardstick of success in Kenyan society.

“The culture perceives that the bright students go to secondary school and the not-as-bright go to polytechnics,” says Maina. “No one wants to be seen at the polytechnics so people avoid this as a destination.”

According to Maina, the Kenyan government has so far failed to invest in these institutions, doing little to combat their negative image or adapt them to better fit the needs of Kenyan youth. “How do you make it look luxurious? How do you make people feel proud to be where they are?”



Where the government has failed, private institutions have stepped in, creating a huge for-profit industry around higher education in Kenya. These institutions are private colleges aiming for young people like Achieng and Osman who are unable to attend four-year universities, but strive to attain the higher education they believe will lead to formal jobs.

“If you look at yesterday’s paper, 60 percent of the ads are for universities. Most of them are looking for this group of students,” says Maina. “Higher education in Kenya has become a money-making business.”

This private-education sector is still largely unregulated. While there are reputable private institutions, hundreds more offer low-quality education and target poor students who can’t afford anything better. These students end up investing precious funds in sub-par educations that rarely result in good job prospects.

Despite past failures, the Kenyan government is working to make gradual, but potentially significant changes to its education system.

Recognizing the failures of the public polytechnics to serve Kenyan youth, the government has recently been working to revitalize this system, including passing the Technical and Vocational Education and Training Act this year, which seeks to expand and revitalize the nation’s youth polytechnics. It has also allocated funding to subsidize the tuition of these institutions and is working to shift their negative image—for instance, there is now a path for students to move on to a university education after graduating from a polytechnic, helping to fight the stigma of the schools as a dead-end.

The number of young Kenyans enrolled in youth polytechnics has increased from 85,200 in 2008 to 127,691 in 2012. There has also been an important shift in the curriculum that provides students not just with employable skills, but also with the skills to create their own jobs. Youth polytechnics now play a critical role “in promoting youth entrepreneurial skills development as well as equipping the youth with employable skills... It gives you a two-way opportunity, one to venture into self-employment, and two, to venture into wage employment,” says Omolo.

Omolo is more optimistic than Maina about the potential of these institutions. “To me the perception is changing,” he says. “Let’s not say that it has changed, but to me I want to use the term that it is changing. People are now seeing that formal employment is actually shrinking and polytechnics are playing an important role in increasing opportunities for informal employment.”

The government has also begun the process of instituting important reforms to Kenya’s higher education system and of halting the proliferation of colleges that are providing substandard education to Kenya’s youth. Last year as part of the Universities Act, it established the **Commission for University Education**, whose goal is to provide quality assurance of all colleges and universities by establishing standards for the qualifications of staff, mandatory curriculum reviews and structures to better promote, coordinate and regulate universities across Kenya.

“I am hopeful that the establishment of the commission will improve quality. Even the mere fact that they are able to compel universities to submit to their programs is a major step,” says Omolo, adding that the day prior to our conversation, the commission had given notice to a private university that it would be shut down if it didn’t comply with certain standards. “It’s going to be less and less possible for institutions of higher education to be just started without any regard to basic guidelines.”

Solely improving Kenya’s school systems, however, won’t be sufficient. Those schools, and the government systems that complement them, need to reach the right people. As it happens, those are often the toughest people to reach.

### Money for Nothing?

Daniel Mutua didn’t start Next Level Events without help. He received his first loan from YEDF when it started in 2006, and has since received three additional loans.

For someone like Mutua, YEDF is an effective program. He’s the kind of guy who’s got a mind for business, always mulling his next idea. (At one point



Koor Osman sitting outside his restaurant.





Young entrepreneurs working in the informal economy may be the best hope for Nairobi's future.



during our conversations, he mentioned he was thinking of getting into the fish-farming industry: “It can’t be that hard,” he said casually. “Start-up costs are low, the risk is minimal and demand is really high as Lake Victoria’s population of fish is depleted.”)

But for someone without such business acumen, polished demeanor and language skills, these types of programs, even with the best of intentions, often remain out of reach. YEDF wasn’t even Mutua’s first loan. He learned about it from a bank that had previously given him a loan for his business. Critics say this is the flaw in these programs: They mainly work for youth who already have the means to succeed.

“The youth we hoped would come and benefit were the youth who were disadvantaged and lacked opportunity,” says Maina, who worked for YEDF for a year and is outspokenly critical of its approach. “The people who found out about it were young people leaving university and college who knew how to speak English and had the skills to apply for a loan. The people we were targeting didn’t know about it. They didn’t know how to speak English, they were scared of the government... We attracted the people we didn’t mean to attract.”

Maina left YEDF several years ago, convinced that its approach needed revision. “They shouldn’t show one success story,” he says when I bring up Mutua. “They should show hundreds. They receive one billion shillings. Where is that money going?”

In Kenyan politics, that’s a question you hear often. Another government foray into the youth unemployment problem offers one of many possible answers to it.

In 2009, the Office of the Prime Minister launched Kazi kwa Vijana, an initiative focused on creating jobs for unskilled youth. It was a kill-two-birds solution, elegant in its simplicity: Young people would build roads, create irrigation systems and assist with waste collection, improving the country’s cities and infrastructure while learning the skills that could get them a job outside the program.

In 2010, the program received a \$43 million loan from the World Bank. When

the Bank **audited** the program the following year, the results were disturbing even to foreign aid’s harshest critics. One-third of the money set aside for it was nowhere to be found, drained into a bottomless funnel of salaries for employees that didn’t exist, lavish retreats that never happened and payments for services never rendered. The World Bank demanded that the money be repaid and the program has since faded into hushed obscurity.

It’s a familiar story in Kenya, which frequently finds itself **near the top of “Most Corrupt Countries”** lists. Indeed, effective government support could be the missing link in the youth unemployment problem. The issue played a major role in Kenya’s recent presidential election. The winner of that contest, Uhuru Kenyatta, has promised over \$70 million in interest-free loans for youth and women, and called for mandatory allocation of one-third of government contracts to young people.

One of the biggest barriers to solving the youth unemployment problem, however, is that despite the funding thrown at it, there remains a lack of rigorous research into the most effective approaches. The most solid conclusion that can be made is that while formal employment is important to promote, the realities of Kenya’s economy demand that youth are better prepared to become their own informal innovators.

“From my experience that might be the only option. I don’t personally like it very much—there’s a lot of reasons that the average person doesn’t make a very good entrepreneur—but in some countries it is difficult to create enough jobs in the formal sector,” says Nathan Fiala, a post-doctoral Fellow at the **German Institute for Economic Research** who is currently involved in a study on youth employment generation in neighboring Uganda.

Fiala’s work is turning up some tactics that might be applicable in Kenya. For instance, for a long time, microfinance was considered a magic bullet, but its long-term effectiveness has come into question. “There’s not a lot of evidence yet that microloans improve business,” says Fiala. “They are good for smoothing consumption—people eat more consistently when they get these loans—but the judgement is still out on whether loans are going to work for the long term.”



A more effective alternative, according to the midterm results of Fiala’s study, could be grants, which his research suggests have a higher potential for impact. “There is strong evidence that cash grants can have high returns,” he says. “It’s not always a very popular idea, handing out free cash, and I want to be cautious about what can happen in the broader economy when you’re handing out free money, but the preliminary evidence is that people use cash well.”

There’s also been a shift in thinking on skills training—namely that it needs to be paired with funding to really work well. Entrepreneurial skills are important, says Fiala, but “there’s not very good evidence on skills training in itself. If you don’t have the money to buy the tools or materials you need, you still can’t do anything.”

This is why the programs that have had the greatest impact so far have been ones with integrative approaches that include access to finances combined with skills training and social support. “My advice to the Kenyan government would be, don’t just focus on economic programs to solve social issues. You also need to develop social programs: Jobs and some kind of psychological or social support,” says Fiala. These programs also require a specific focus on low-income Kenyans and must take gender and class into account to avoid YEDF’s problem of being accessible mainly to middle-class Kenyans.

The ILO has partnered with the Kenyan and Japanese governments to implement a program called Youth Employment for Sustainable Development that uses such an integrative approach. Like the Kazi kwa Vijana initiative, the program trains and employs Kenyan youth to construct roads using locally available material, providing them with jobs while simultaneously upgrading Kenya’s infrastructure. What makes it different from other programs that



Daniel Mutua in his workspace at Next Level Events.

focus only on skills training or temporary employment, however, is that it also trains the youth to be entrepreneurs, incorporating business training and facilitating the formation of networking groups among the youth. Essentially, it trains them to be contractors, rather than just casual laborers.

“Small business start-up and management requires a number of solutions, and hence a more integrated approach accelerates the time for youth to transition to employment,” says Jane Maigua, the national project coordinator for the program. If it works, in the future the government could contract these youth groups to build the roads instead of hiring outside contractors. “I think it is a very good program,” says Omolo. “It has very high potential for massive job creation.”

None of these programs, however, can fully succeed without good governance. With the money Kenyan firms pay in bribes each year, 250,000 people could be hired, according to the World Bank’s Kenya Economic Update. As long as government programs continue to come with the expectation of cronyism and graft, even the best-designed solutions will be limited in what they can achieve.

“With good governance things will really change for the Kenyan people,” says Koor Osman. “The funds will go to the proper place and people will be more interested in investing in Kenya.”

Investment in people like Osman, Daniel Mutua and Bridget Achieng seems like a safe bet. Sitting with Achieng in her shop in downtown Nairobi, I watch her effortlessly converse with a friend from Kibera and another woman who is the star of Nairobi Half Life, perhaps the biggest movie ever to come out of Kenya. “I’ve met different people, I’ve learned how to understand people in a different way,” Achieng says of her work. “You meet people from all different genres.”

In fact, Achieng’s tiny shop seems to be one of those rare corners of Nairobi where people from different classes rub shoulders without fear or discomfort—sometimes, by hopping classes, you give other people permission to do the same. By lowering the barrier for entry into the country’s informal economy, the entrepreneurial drive of Kenya’s youth could change not only the economy, but the very culture of their country.



# Scenario Summaries



# What the Futures Hold: The Scenarios Visioning Process

We may not be able to predict a single, specific future, but we can prepare for multiple, possible futures. We can imagine what changes might take place in the coming decades and use those scenarios as our guides. Through this process—which unfolds using a special set of techniques called (you guessed it) futures—we can imagine what tomorrow might hold so that we might act with greater foresight today.

Scenarios such as these are not predictions. They are plausible, coherent and challenging descriptions of possible future worlds that can be used as tools to understand the impacts of global trends, help organizations or groups of people develop wiser strategies, and spur innovative ideas for new products, services and processes.

The Informal City Dialogues sought to catalyze conversations about informality in each of the six cities involved. To do this, Forum for the Future and The Rockefeller Foundation brought together stakeholders from each city to collaboratively create multiple scenarios to better understand what could happen to the informal aspects of their cities in the future. These were then used to stimulate ideas for social innovations to create better futures for these cities—to make them more inclusive and resilient places for all. The following are summaries of the scenarios created in these workshops.

## Accra

### POSITION

This is a story about a highly unequal and unstable society, where the majority of the poor are disenfranchised. Accra in 2040 is characterized by a sharp divide between the formal and informal sectors in the provision of education, environmental stewardship, and governance. Although Ghana seemed to be on the right path when university education was made free in the 2010s, an armed conflict wracked the region in the 2020s and disrupted the country's forward progress. Things have improved since the conflict abated in the 2030s but development has been uneven. Some parts of the city went through massive redevelopment funded by international aid, whereas other areas were passed over. Given the high cost of energy, transportation and housing have become increasingly unaffordable. Water is the most expensive commodity and the effects of climate change are causing serious disruption in the city. The Chinese now dominate the informal economy.

### POTENTIAL

Accra in 2040 is making progress after suffering through difficult times. A “lost decade” of regional armed conflict killed many of the city's residents and caused major disruptions to education and development. Following the war, international aid and the African diaspora were successfully mobilized to create jobs, trade, and good governance networks. Reconstruction and social cohesion began to take root around 2030, and Accra's political leadership improved. A surge in natural resource extraction made energy affordable and Accra became a hub for global production and services. Although most people still live in poverty, a middle class has started to emerge. Gleaming high-rise buildings now rub shoulders with squalid shacks. The benefits of new infrastructure, like a new high-speed rail link and the West Africa power grid network, have trickled down to the poor to some extent. Accra's government has begun to focus aggressively on urban regeneration through land reform programs, basic service provision, and economic infrastructure investments. Social innovations are starting to provide real benefit to those in the informal sector.

### PERSISTENCE

In this scenario, Accra's government has closed the poverty gap and ensured decent lives for many of its residents. It must now rely on the ingenuity of



its citizens to address its energy challenges. Accra in 2040 has an efficient public transport system, healthcare and basic education are free and of decent quality, and the city has grown into a beautiful metropolis. Effective governance in the 2010s strengthened the economy and created innovation clusters around agro-processing, finance, and services. The increased tax base then funded massive public infrastructure investment in public health, affordable housing, efficient transport, and quality education. By 2025, Accra had emerged as an oasis of opportunity and was rapidly becoming a key regional economic hub. However, over the following decade the city struggled to provide clean water and energy, and slums began to re-emerge. In 2040, the economy has begun to pick up again as the energy situation improves and the state is still able to maintain minimum living standards for most people in the city based on its legacy investments.

POWER

Accra in 2040 is prosperous and united. In the late 2010s, slum dwellers were relocated in special deals that restructured land ownership and enabled private development. The government supported informal workers with welfare and skills development programs, as well as a medical insurance and pension scheme. The city became a center of entrepreneurship and innovation, particularly related to agriculture. In the 2020s, resilient systems were built to manage social, economic, and environmental challenges. The city’s visionary leaders understood the power of informal communities and created opportunities for citizens across the socio-economic spectrum to contribute to development plans. While the government invested in infrastructure and services, it also enabled other stakeholders to do the same. Incentive programs encouraged the private sector to invest in sustainable industrial development and corporate social responsibility. Land administration was successfully reformed and housing, much of it environmentally sustainable, became accessible to all. Community-based strategies have been developed for including the increasingly large elderly population in city life and ensuring that they have adequate care. Ghanaians from the diaspora have begun to come back home—not just for retirement, but also so their children can attend the excellent universities, and to start businesses drawing upon their accumulated capital and new ideas.

Bangkok

MIXED VEGGIE STEW: AN ALL-INCLUSIVE CITY

In 2040 Bangkok has become an inclusive city—with extensive and formal political organizing and a high degree of civic engagement. The poor and vulnerable populations, both in the formal and informal city, have adequate access to basic services and employment opportunities, as well as political representation at the local and national levels. City residents, regardless of their ethnicity, age, or social and economic background, can live, work, travel, and play alongside one another. They share public services such as mass transit systems, public parks, and hospitals. Due to strong political organizing and advocacy on behalf of the poor and vulnerable, there is a commitment to remove all obstacles to the full participation of everyone in city life. People are equally valued and respected as unique individuals. City infrastructure and facilities are re-developed to accommodate the needs of disadvantaged people.

CURRY RICE: A MAFIA AND CLIQUE CITY

This is an economically integrated city, in which informal and formal economic activities are intricately linked. The poor and vulnerable populations live and work close to the middle class and the rich. It is an integrated environment but not necessarily inclusive. Due to ad hoc, informal political organizing, and limited civic engagement and advocacy, the basic infrastructure of the city still favors the middle class and the rich. Despite this, informal public services allow the poor and vulnerable populations to live and work in the same areas. The poor in the informal sector have limited formal political representation and get co-opted by “influential people.”

SECTIONED PLATES: A TUG OF WAR CITY

Bangkok in this scenario has become an even more segregated city by 2040, in which people of different social and economic backgrounds live and work in different parts of the city. Formal political organizations and advocacy groups lobby for group interests along social, economic, and political lines. Even the poor and the informal now have collective political clout. They pursue and maximize their group interests at the expense of other groups, creating an extremely partisan political environment that negatively affects social harmony. Due to decentralization efforts, each municipality has



more authority over local infrastructure and facilities but there are clear inequalities among municipalities in the region.

FOOD-COURT BUFFET: A FREE FOR ALL CITY

This is a socially and physically segregated city where the rich, the middle class, and the poor all live in separate areas. Rich foreigners and poor foreign migrant workers are also segregated. City residents, whether rich or poor, are apathetic about national and city politics and do not care much about civic engagement. People with more resources and political connections are able to benefit most from urban public services. “Those with the longest arms are able to grab the most.”

Chennai

CHENNAI INC.

Chennai in 2040 is a city for the rich. They dominate the local government, which enacts policies for their benefit. The city is clean and efficient but has no room for the poor or the informal. In 2025, the slums were demolished to make room for shopping malls and high-rise buildings. Public spaces like parks and roads have been cleared of street vendors and the informal sector has been largely eliminated. Problems are outsourced to the private sector to solve and services including water, electricity, waste management, education, and healthcare have all been privatized. Service delivery is efficient and high-quality but unaffordable for the poor. They’ve been pushed to the edges of the city and now their only interaction with the wealthy is when they work as maids, cooks, or other household servants. Waste is sent offshore to be recycled and is no longer available for waste pickers to process.

GATED CHENNAI

In this scenario, Chennai’s government in 2040 is pro-rich, autocratic, and laissez faire. It is also inefficient and unable to deal with the needs of the growing city. The wealthy have ensconced themselves in luxurious gated communities that benefit from privatized services like clean water from desalination plants and high-quality health care. The poor are mostly confined to crowded and squalid settlements on the outskirts of the city that lack basic services. Unemployment and crime rates are high and there is a widespread sense of alienation. Public spaces and other amenities are scarce and poorly maintained. The government’s inability to manage waste has caused severe degradation of air and water, leading to widespread health problems—especially among those too poor to afford private hospitals. Waste from the gated communities is mostly dumped outside the city, preventing access to it by waste pickers.

NAMMA METRO

Chennai in 2040 is run by a government that has progressive policies but is highly ineffective. In this scenario, a radical leftist party took power in 2015 and has been in control ever since. The party has promoted pro-poor policies and is committed to providing public services but has a hard time delivering on its promises. Slums were officially recognized and legalized



in 2020 and are now widespread throughout the city. However, conditions in the slums are poor, as the government is unable to effectively provide services to the rising population. Open spaces are scarce, as most of them now contain informal settlements. Waste management has been decentralized and provides income for waste pickers, but conditions are unhygienic and difficult. Ineffective waste management combined with climate change has caused extreme environmental degradation, including dangerous levels of air and water pollution. Disease is rampant and the poor quality of healthcare in government hospitals means that infant and maternal mortality rates are at an all-time high. The informal sector in 2040 accounts for more than half the workforce.

RAJNIKANTH

In this world, a transformation of Chennai began in 2014 with the implementation of a new kind of housing development called *Samthuvam* (“Equality”)—an *in situ* redevelopment of a slum guided by an inclusive and participatory process. The new development integrated people from different social and economic strata and sparked a revolution in attitudes and policies. By 2040, an efficient and pro-poor government is able to provide high-quality and affordable services to the people of the city—including universal healthcare and education, clean water, and a fair and efficient judicial system. The cityscape features high-rise buildings to house the growing population and consists of self-sustaining neighborhoods that benefit from community agriculture and localized waste treatment. Waste pickers have been able to transform themselves into community waste managers thanks a government-funded education program.

Lima

SOLIDARIDAD PARA AVANZAR (SOLIDARITY FOR PROGRESS)

In 2040, the effects of the over-exploitation of Lima’s resources are obvious: poor soil quality, water and energy shortages, and a reduction of public space. To counter these problems in the absence of strong state institutions the population has self-organized, with some assistance from the government. Informality has become a lifestyle choice but people are unsure of how to integrate it with existing mechanisms and institutions.

COMUNIDAD Y RIQUEZA (COMMUNITY AND WEALTH)

In this scenario, Lima has expanded vertically and public spaces have multiplied. Large infrastructure construction has endowed the city with resources such as communications networks, environmental services, and improvement of its surrounding valleys. Civic participation and policymaking have been led by an organized middle class that leverages new communications technologies to promote its economic interests.

APORTA PARA EL ORDEN Y SOSTENIBILIDAD  
(CHIP IN FOR ORDER AND SUSTAINABILITY)

In this world, Lima in 2040 has plenty of resources, managed rationally by the city, but the young and talented are leaving for other cities. Order and sustainability are the principal public goods—which citizens strive to maintain at any cost. There is a crackdown on informality through regulations and legislation. This raises the cost of doing business and impels talented people to move elsewhere.

YO MISMO SOY PARA SURGIR (I CAN SUCCEED ON MY OWN)

Lima’s vital resources in 2040 are controlled by private companies comprising an elite that also holds the political power. The masses are pacified with populist measures. Informality is associated with a precarious lifestyle but one in which everyone manages to take care of their own daily subsistence. Residents of the city pursue their individual wellbeing at the expense of the commons.



# Manila

## KANLUNGAN (SHELTER)

Slow population growth and effective urban planning have enabled Manila to become prosperous, healthy, and inclusive by 2040. Progressive reforms initiated in the 2010s, including the Reproductive Health Act and a program to provide cash to indigent families for child education and maternal health, have been continued by subsequent administrations. The Farm to Market program has curtailed food insecurity. Public housing has put an end to evictions and resettlement and the few remaining informal settlers are all living in medium-rise buildings (MRBs). New housing developments are built sustainably and communities are more walkable, energy efficient, and livable. Unemployment is low, meaning that workers remain in the Philippines and families are kept together. Affordable and high-quality healthcare and education are widely available. Pollution has been largely eliminated and technological innovations have been developed to mitigate the risk of other natural hazards like earthquakes. The well-educated populace is politically engaged, ushering in an era of better governance.

## HAWAK KAMAY (HOLDING HANDS)

In this version of Manila’s future, the challenges of rapid population growth are met through collaboration and effective urban planning. By 2040, Manila’s population has expanded significantly—but slums have disappeared, there is ample public housing, and people are happy living in smaller spaces. Housing is generally affordable, accessible, and safe, and nearly everyone has security of tenure. Pedestrian areas and green space are both abundant and public transit is widespread, accessible, and efficient. The city has been re-designed with disaster risk reduction and climate resiliency as priorities—so that when disasters do occur, they are no longer catastrophic. All children have access to education. Solar energy provides for most of the country’s energy needs

## MAGHINTAY KA LAMANG (JUST WAIT)

In this scenario, slow population growth and ineffective urban planning have engendered widespread apathy among the people of Manila by 2040. Successful implementation of the reproductive health law has slowed down population growth but other aspects of governance and planning have been less effective, however. Manila these days feels like it did in the

more “laid back” 1960s—less chaotic but also stagnant. The government tried to address the housing issue in the 2010s by constructing MRBs and relocating settlers. But by failing to do so in a truly consultative way, and ignoring key issues like the prohibitively high cost of transportation, this initiative ultimately failed and slums have proliferated. A labor shortage is compelling many of the elderly and the young to work, often in the informal sector, preventing children from going to school. Climate change has disrupted weather patterns and Manila is now subject to droughts, rather than typhoons and flooding. Increased temperatures coupled with a lack of potable water are causing disease. People accept these problems with resignation and focus on meeting their immediate needs.

## RUN SAMSON RUN

In this scenario Manila is hobbled by the negative effects of rapid population growth coupled with ineffective urban planning. By 2040, the population has exploded and many people are unemployed. Environmental degradation is widespread, the supply of water and energy from public utilities is inadequate, and the number and quality of public spaces is declining. Development is mostly unplanned and uncontrolled. Hunger, unemployment, prostitution, and crime are all on the increase. Foreign investment and tourism have declined over the intervening decades causing job losses and a drop in revenue. Poverty is endemic and there is a generalized lack of access to government services. Agricultural land around Manila has been developed for other uses, leaving the city dependent on food procured from much further away in the country—a situation that is more expensive and less reliable. Education is too expensive for many families to afford. Informal settlements are common and many of them exist in hazardous areas. Regular flooding has caused widespread loss of life and billions of dollars in damages.



# Nairobi

## NAJIVUNIA

The citizens of Nairobi in 2040 have a strong sense of civic duty and are proud to call the city home. The county government is competent, trusted, and genuinely consultative. Infrastructure and services are mostly adequate—and when they’re insufficient citizens collaborate to fill the gaps. High-quality healthcare is widely available, with costs being shared between the government and the people. Land tenure policy has been reformed and now land is owned by the people who live on it. Most slums have been upgraded to decent low-income housing. Although settlements are denser they’re also better organized. The cost of living is higher, and income equality still persists, but government controls have narrowed the gap between rich and poor. A creative and entrepreneurial class has emerged in Nairobi and the city has become a hub for technology and innovation. The formal and informal sectors are more porous and collaborative, with easier licensing procedures and designated spaces for street vendors. Climate change is being taken seriously by business and government, and substantial investments have been made in renewable energy, smart buildings, wildlife conservation, habitat restoration, and water management.

## BONOKO CITY

In 2040, Nairobi’s government is in the hands of wealthy individuals and corporations who use it to promote their own interests—rather than those of ordinary citizens. Public services have been privatized in the name of efficiency but are poorly run. Water and sewage systems are failing, causing water contamination and the threat of disease. The city’s residents, however, have successfully self-organized to provide themselves with many key services in the absence of effective government—from transportation to banking to housing. The informal sector has become increasingly attractive, and enjoys a largely symbiotic relationship with the formal sector, but is subject to continual suppression by the government.

## VULTURE CITY

The prevailing ethos in this scenario is survival of the fittest. Nairobi’s citizens in 2040 are selfish, apathetic, and cynical. The government is ineffective and unable to provide basic services. Poor sanitation in informal settlements causes regular outbreaks of disease. Gangs have come to

dominate much of everyday life, including the informal provision of water, electricity, and security. Expensive credit has dampened entrepreneurship and big business is consolidating its advantage through exploitative practices. The informal economy has partly collapsed, due to the high cost of doing business, and people are moving to other cities in search of better opportunities. The city has become more dangerous and the wealthy and middle class have retreated to gated compounds. Citizens innovate in this scenario, but only for survival.

## BIG BROTHER CITY

Nairobi in this scenario is prosperous but stagnant. An effective county government has delivered high-quality infrastructure and services and exercises control over much of society. The city enjoys security, low levels of inequality, and ample job opportunities. However, high taxes and government regulation are stifling innovation. The citizenry is apathetic, individualistic, and wary of outsiders. The media has largely abdicated its oversight function out of deference to the government. The informal economy is considered bad for the city’s image and has largely disappeared.



# Commentary



# When Tokyo Was a Slum

Matias Echanove & Rahul Srivastava

First-time visitors to Tokyo may arrive with one of two fantasies dancing in their heads. One is the hyper-modern city of sleek 100-story high-rises and gleaming starchitecture. The other is the darker version: The city that inspired *Blade Runner* and *Akira*, a super-dense, technology-saturated metropolis in which Manga faces on towering billboards grin down on shootouts and chase scenes.

And why shouldn't they? Such imagery, after all, speaks to a world-class city. But the fuel that powers the Tokyo economy looks, in large part, far less cinematic. Newcomers may be shocked to find that much of residential Tokyo actually resembles the low-rise, high-density habitats one normally associates with cities like Mumbai and Manila. Alongside the futuristic visage of skyscraper Tokyo, a human-scale city lies along rambling roads, where mom-and-pop stores sell soap and sandals, and private homes double as independent shops engaged in local trades like printmaking and woodworking.

This is incremental Tokyo, the foundation upon which the world's most modern city is built.

Like much of the city, these small hamlets were smoldering ash pits 70 years ago, reduced to rubble by the bombs of Allied forces during World War II. When the war ended, Tokyo's municipal government, bankrupt and in crisis mode, was in no condition to launch a citywide reconstruction

effort. So, without ever stating it explicitly, it nevertheless made one thing clear: The citizens would rebuild the city. Government would provide the infrastructure, but beyond that, the residents would be free to build what they needed on the footprint of the city that once was, neighborhood by neighborhood.

What those residents built was, essentially, an enormous unplanned settlement — a settlement that, in some respects, was built much the same way that Dharavi, the huge unplanned settlement in Mumbai, is being developed today. Communities like Dharavi are growing everywhere in the world, and are often subject to hostility and neglect by officials. Yet in many ways, these places are growing similarly to the way postwar Tokyo did — a form of urban growth that created what is now widely seen as one of the world's greatest cities. If the Tokyo's success can be attributed even in part to the way it grew, then it's a living tribute to the type of urbanism that now fuels the growth of unplanned settlements like Dharavi.

## A CITY OF VILLAGES?

To this day, Tokyo is often described as a collection of villages. The American writer Donald Richie, who lived there for much of his life, described “the feeling of proceeding through village after village each with its own main street: a bank, a supermarket, a flower shop, a pinball parlour, all without street names or numbers because villagers

don't need them. Each complex is a small town, and their numbers make up this enormous capital.” Others believe this image of Tokyo is romantic and distorts our understanding of what Tokyo is all about.

According to Metabolist architect Kisho Kurokawa, Westerners misunderstand Tokyo as informal and illogical because of their dualist notion of the city as divided into polar opposites: Urban and rural, formal and informal, order and mess. But Japanese culture, says Kurokawa, accepts that mess and order are inseparable: “The open structure, or receptivity, is a special feature of the Japanese city and one it shares with other Asian cities.” This is why the Japanese are so tolerant of urban forms that the West would see as “irrational” or “messy” — neighborhoods develop and slowly integrate with the larger urban system on their own terms. Tokyo was built with loose zoning rules to become a fantastically integrated mixed-use city, where tiny pedestrian streets open up to high-speed train lines.

Whether we allow such piecemeal development and retrofitting to exist in today's cities goes to the very heart of how we will define good urbanism in the 21st century. If we assume that contemporary Tokyo is a model for desirable urban



Much of Tokyo, one of the world's greatest urban success stories, was built incrementally.

development — and many people would — we can only conclude that user involvement and incremental development have a lot to recommend them. On the surface, Tokyo and Dharavi are two places that couldn't seem more different: One prosperous and one impoverished, the former a superpower and the latter a slum. But removed from the dualist perspective, the line that separates them is far blurrier.

## REBUILDING, ONE HOUSE AT A TIME

After the war, one of Tokyo's few abundant resources was memory — the collective recollections of millions of residents who could remember what their city had looked like before it was razed. Luckily for them, what Tokyo had looked like, even before the war, was a collection of semi-autonomous





Following the war, citizens rebuilt Tokyo neighborhood by neighborhood.

neighborhoods. The central part of the city is the historical core of Edo, which became Tokyo in the late 19th century. But the periphery grew largely without planning. Tokyo swallowed up the surrounding villages as it sprawled outward, and gradually converted small plots of farmland to residential, commercial and industrial uses. It blurred urban and rural in the process, defying one of the most important dichotomies of Western urban planning. (Today, some of those old plots are being converted back into farmland.)

Throughout the 20th century, as surrounding villages were absorbed into the expanding city and rural villages became urban neighborhoods, their inhabitants preserved some of their customs and social organization. But the central government never saw the autonomy of these

neighborhoods as a threat. In fact, during the war the city relied on the self-organization of its neighborhoods for defense.

In the immediate aftermath of the war, the government focused on essential needs, like the reconstruction of infrastructure and disaster relief. During the Occupation Years (1945–1952), the Ministry of City Planning produced the “War Damage Revival Plan,” basing it on modern city planning theories. A living document, some parts of this plan are still being implemented more than six decades later. In the early postwar period, however, the government put aside the plan’s most ambitious recommendations and left housing and commercial development to local actors. Tokyo’s reconstruction, especially at the neighborhood level, was largely driven by self-reliance. The housing challenge was immense.

Japan had barely built any new housing after 1937 as it ramped up its war effort, and the attacks destroyed much of this already inadequate stock. Scarce capital was another constraint. “Financial policy directed available funds to large industrial firms, not the mortgage market, and most families did not have the savings for a down payment of nearly 40 percent,” writes Gary D. Allinson in *Japan’s Postwar History*. People did need places to live, however, so housing got built one way or another. Between the late 1950s and the early 1970s, Japan built more than 11 million new dwelling units, increasing its housing stock by an astonishing 65 percent. Private companies and public entities provided only a small part of that — the lion’s share was created through owner-occupied single-family homes and

“small rental units built and operated by private parties.”

This meant that a local construction industry, relying heavily on homeowner involvement and traditional construction practices, dominated the redevelopment of residential neighborhoods. The city quickly repopulated with people coming back from the war or migrating from an impoverished countryside, and by 1955, Tokyo had 7 million residents. It was an incredible moment in the city’s history, one where ordinary citizens excavated the skills and know-how of the past to build what would become the city of the future. They relied on vernacular knowledge of construction, and gradually, local masons, laborers and in some cases the residents themselves rebuilt entire neighborhoods, one house at a time.

It’s hard to imagine Tokyo as a vast, incrementally developing slum all the way through the 1970s and onwards. Yet in many ways that’s what it was, and this period has strongly influenced the city’s present form. To this day, one can find shops selling construction materials in most residential neighborhoods. Shack-like structures made of tin sheets and wood sit next to ultra-modern houses built of steel, glass and concrete.

This pattern of development is not unique to Japan — it can be found throughout Asia and in other places, including in Dharavi. The difference is the attitude of the Japanese government, which let unplanned neighborhoods grow and consolidate freely. It didn’t stigmatize these settlements as “slums,” nor did it discriminate against or harass them. They were treated as legitimate

upwardly mobile neighborhoods, in stark contrast with the way unplanned settlements are treated in Mumbai.

### PROSPERITY, INCH BY INCH

It’s one thing to show that Tokyo developed in an incremental way. It’s quite another to suggest that this development pattern informed the city’s economic success.

But historical evidence shows that the Tokyo model of urban development wasn’t incidental to the economic rise of the city. Local construction practices, family-owned businesses (including manufacturing units), flexibility of land uses and live-work arrangements created a shadow, homegrown economy that went hand-in-hand with the city’s global-scale, export-orientated industrial development.

There’s no contradiction between being a “world-class city” and having residential houses that host printing, woodwork and other small industrial businesses on their ground floors. Today, Tokyo has far more local businesses than most Western European or Northern American cities — not just restaurants, convenience stores and laundries, but bakeries, public baths, martial arts schools, print shops, artisan workshops, offices and so on. The same small businesses that are dying in Europe and the U.S. — and are threatened in India and China — are surviving in Tokyo (though real estate speculation is threatening them, as it is everywhere).

These mixed-use habitats and low-rise, high-density neighborhoods emerged by default, not design. But though the city didn’t



plan them, it considered them legitimate and supported them. Sewage systems, water, electricity and roads were later infused into all parts of Tokyo, leaving no neighborhood behind, regardless of how slummy or messy it looked. Even the traditionally discriminated-against Burakumin areas were eventually provided access to state-of-the-art public services and amenities.

The notion that infrastructure must be adapted to the built environment, rather than the other way around, is a simple yet revolutionary idea. The Tokyo model, combining housing development by local actors and infrastructure from various agencies, explains why that city has some of the best infrastructure in the world today, not to mention a housing stock of great variety and bustling mixed-use neighborhoods.

### THE HOUSE IS A TOOL

The relationship between the city's urban form and its vibrant economy is best illustrated by the idea of homes as tools of production. Many of the houses built in the postwar period in Tokyo were based on the template of the traditional Japanese house, in which a single structure can serve as a shop, workshop, dormitory or family house — and possibly all of those things at once. Official statistics illustrate the scale of the home-based economy. As late as the 1970s, factories employing fewer than 20 employees accounted for 20 percent of the workers and 12.6 percent of the national output in Japan. In Tokyo alone, 99.5 percent of factories had fewer than 300 workers and employed 74 percent of all factory workers, according to economist

Takeshi Hayashi. What these numbers tell us is that the Japanese miracle was built not only by large-scale factories, but also relied on a vast web of small producers that often worked from their neighborhoods and their homes.

According to Hayashi, “Technological transformation in Japan took one of the following two paths: (1) modernizing traditional technologies, (2) making modern technologies traditional.”

With the second, the production line was subdivided into individual processes, and workers were instructed to move from one to another to become skilled in each major production process and, thus, to master the overall technology. These major production processes were then divided into smaller ones separated from the production line to become subcontracted work.

Hayashi explains how breaking down the line into smaller autonomous but highly integrated units made it possible for Japanese firms to compete with more advanced production processes. He gives the example of a German industrialist who, despite investing in state-of-the-art machines to manufacture “German-made” buttons from Kobe, eventually lost to Japanese competitors who had broken down the production process into “more than two dozen microprocesses, each of which became a separate job performed by a worker ‘manufacturing’ at home.”

A 1972 report corroborates this account of the organizational structure of manufacturing, stating that “subcontracting enterprises are dependent to a large extent upon domestic (household) workers and part-time home workers.” The report further

explains that this domestic-workshop system relies heavily on location, since workers are organized in specialized clusters where each unit is connected to others. The modus operandi of these networked units was not competition as much as cooperation and functional integration.

Cottage industries based on small producers operating from their homes or small workshops were common in England and the U.S. until the mid-19th century, notably in the production of textiles, but also for more technologically advanced goods like firearms. The conventional wisdom is that industrialization put an end to this system, replacing the “workshop system” with the “factory system.” But in Tokyo, the workshop and the factory system were enmeshed. The capillarity of subcontracting networks, which connected large factories to home-based industries, meant that as Japanese industry grew, neighborhoods also benefited. Small businesses reinvested a share of their earnings into the improvement of their homes and workshops because those were their tools of production.

This virtuous circle uplifted the whole city. Throughout the postwar period tiny factories spread all over Tokyo, producing parts that were then assembled to produce the goods that grew the economy. This allowed the incremental emergence of an entrepreneurial class, which reinvested a part of its earnings in the improvement of their home-based factories, thus contributing to the overall development of the city. What was not immediately reinvested was saved in bank and postal accounts. The banks

then lent this money to the government, and the government used it to finance large-scale urban infrastructure projects, which helped better connect the factories. The cycle continued until Tokyo had transformed into an incredibly efficient urban system, connecting neighborhoods — and in turn, industries — through a state-of-the-art transportation infrastructure.

This shadow history of the Japanese economic miracle provides a powerful counter-narrative to the large-scale, foreign investment-led development promoted in today's developing cities. The middle-class was very much homegrown in Tokyo. Its savings ultimately produced the financial strength of Japan. And because of its urban form, investment in its economy was investment in the city's neighborhoods themselves.

### MUMBAI'S HIDDEN POWERHOUSE

A model of development inspired by the best aspects of Tokyo's development could be of use in Mumbai and other rapidly developing cities throughout Asia. Unfortunately, local authorities too often dream instead of a high-rise, car-centric city emulating Shanghai or Singapore. In Mumbai, where about 60 percent of the population is said to be living in slums, a mix of corruption, colonial hangups and institutional prejudice against lower castes and religious minorities blinds the bureaucratic elite to slum dwellers' rights to incrementally develop and integrate with the rest of the city. Officials consider neighborhoods designated as slums to be squatter settlements on government land,





A photo collage showing Dharavi on the left and a Tokyo neighborhood on the right.



and provide them with only the most basic municipal services so as not to encourage residents to stay. The government focuses not on incremental development but on redevelopment, which means clearing slums and building something else in their place.

Mumbai attracts immigrants from all over the subcontinent. Dharavi, a central neighborhood of about two square kilometers with some of the highest density levels in the world, is a testimony to that history. It was initially a small fishing village on the outskirts of what was then Bombay, but grew exponentially as migrants flocked to the city after India gained independence in 1947. Like in postwar Tokyo, newcomers built houses wherever they could, and Dharavi grew incrementally, but at a sustained pace, until it had become an imposing settlement. Today it's a hub for cottage industries ranging from recycling activities to leatherwork, embroidery to food processing. Those who live and work in Dharavi can satisfy most of their everyday needs, from consumption to religion, within a five-minute walk from their homes.

In fact, Dharavi's urban form is simply an amplified version of the mixed-use ideal. Some uses can take over entire parts of the neighborhood temporarily: The street as a corridor for transportation becomes a market in between rush hours; religious celebrations occasionally overtake all available space for an hour or two. Though this suggests chaos when seen through the Western prism of order and mess, Dharavi is in fact an upwardly mobile and highly functional neighborhood. Most of its problems stem not from its urban

form, but from the fact that it is underserved and discriminated against by the authorities. And its malleability has led to the emergence of particular architectural typologies, most notably the "tool-house."

A space used both for living and income generation, the tool-house optimizes space in a context of scarcity. But it is also part of a culture where community ties permeate both personal and professional spaces. It's not a new idea — the traditional artisan's house in pre-industrial Europe was a tool-house, with the master and his family living on the second floor and the workshop (which would double as a dormitory for the workers) on the ground floor. Mumbai's tool-house is also an avatar of postwar Tokyo's home-based manufacturing unit. Tool-houses exist throughout Asia and the world.

Many cities have multi-functional living spaces (Tokyo is one of them), but no city has pushed the integration of functions further than Mumbai. In Dharavi, most structures have multiple functions. They can take the form of embroidery workshops that double as dormitories for migrant workers at night, family homes with small shops attached, informal home-kitchen/takeaway restaurants and priests' homes that have a community shrine.

This extreme exploitation of space is often seen as a consequence of poverty. But relation to space — and to the people who occupy it — is also social and cultural. Throughout South Asia, even in places that are not space-deprived, it is fairly typical to see children or grandparents helping at the counter of a shop while the parents are busy elsewhere.

Skills, tools and clientele are often inherited from the older generation. Community ties facilitate business transactions, as it is easier to trust people who come from the same village or go to the same temple. The house is often opened to the extended family, which includes people from the family's place of origin. Having distant relatives sharing sleeping space on the floor for a few weeks is not unusual, even in middle-class families.

Today, many such tool-houses in Dharavi are highly integrated, technologically and economically, with global production and distribution networks, producing goods (such as leather) that are sold throughout the world. Dharavi's development relies on post-Fordist modes of production: decentralized processes, a multiplicity of small units, just-in-time delivery and minimal inventory. Tokyo's rise to prominence in the last decades of the 20th century was based on a similar integration of small-scale specialized production and large-scale export-orientated industries. It produced advanced consumer goods by assembling small parts created by a network of subcontractors operating at different scales. If, instead of pushing for wholesale redevelopment, the government in Mumbai encouraged a similar model in Dharavi, the entire neighborhood could bloom into a world-class manufacturing hub.

For the people who live in Dharavi, this is not only the best possible outcome, it's their only option. Most residents of Dharavi cannot possibly afford to move to other parts of Mumbai. Their futures will rise or fall with the fate of their neighborhood, which is why the Tokyo model, which values and cultivates

neighborhoods like theirs, is probably their best hope for economic and social advancement.

That prosperity, however, depends on the local authorities heeding the lessons of Tokyo. Neighborhoods like Dharavi are already served by various NGOs and foundations. The residents are doing their part. The only missing piece is the support of city authorities, whose attitude toward such settlements sets back the city of Mumbai as a whole.

What's more, the Tokyo model is simply an elegant one that follows the path of least resistance, allowing order and mess to naturally combine as they would without top-down intervention. It's hard to imagine a better example of "development" in its most holistic dimension: Houses, neighborhoods, economies and communities all rising in concert with one another. The environment is deeply connected to processes of collective growth, because people, objects and lived spaces are all knit together by the impulse to constantly improve and transform. Through this process, with very little capital, we see how user-generated neighborhoods invest in the idea of growth and mobility, where self-interest and successful urbanism are one and the same.



# The Virtues of Corruption

Dr. Benjamin R. Barber

I have been arguing in my new book, *If Mayors Ruled the World*, that in an interdependent world where sovereign nation-states often seem dysfunctional when it comes to international cooperation, cities may have a new and influential role to play. That, if indeed, mayors and those they represent were in charge, we might actually find ways to resolve democratically some of our global problems. It is hard to imagine we can go on confronting a 21st century world of interdependent challenges in crime, environment, security, immigration, markets and war while we are deploying 18th century nation-state solutions that have long since ceased to work.

The cities perspective changes our outlook on many things. Democracy can be more participatory, politicians more engaged, and politics more focused on pragmatic solutions than divisive ideology. After all, mayors are homeboys and the equals of fellow citizens and neighbors.

Yet cities have serious problems too, and poverty and inequality are among them. The cities' lens also refracts how we look at such problems. Richard Florida, for example, has argued that creativity and entrepreneurship are central to the urban identity and give cities a way to confront inequality. Here I will make another, perhaps more provocative argument: That in the perspective of cities, even corruption may have a different aspect. In dire circumstances

in developing world megacities whose megaslums obstruct the path forward, corruption may even offer a perverse kind of opportunity to those otherwise without hope.

The point of this argument is not to embrace corruption or even tolerate it, for corruption is ultimately not only ruinous to democracy, but particularly corrosive to the prospects of poor people. They are its first victims. Nonetheless, they are also sometimes its beneficiaries in ways that help explicate the informal sides of city governance and the odd sympathy for corruption we can sometimes find in developing-world narratives.

The reality is that immigrants and newcomers may benefit from inefficiency and even mild workplace corruption, as the waves of immigrants a century ago in New York and Chicago — and newcomers flocking to Sao Paulo and Mumbai today — will attest. Corruption, and even crime, undermines community and impedes democracy in the long term, but in the short run it can act as an equalizer, a kind of crude fast-track to proximate equality. This no more justifies corruption than child labor can be justified by Katherine Boo's vivid portrait of Mumbai children earning subsistence earnings from sorting and selling the garbage in which they quite literally live. But as Boo writes, "In the West, and among some in the Indian elite, this word, *corruption*, has purely negative connotations: it was seen as blocking India's modern, global ambitions. But for

the poor of a country where corruption thieved a great deal of opportunity, corruption was one of the genuine opportunities that remained."

To take equality and justice seriously then, we must always ask the question: Corruption by whom? Crime against whom? In whose interests? Crime is in many instances a consequence of greed, selfishness and psychic disorders, but it can also reflect a twisted society in which criminality appears as the only way out for certain people on the margins. In the setting of a fair, equitable society in which equal opportunity belongs to all, both crime and corruption are unequivocal evils. But in a rigid, hierarchical society in which exploitation and unfairness are built into a system, where upward mobility is a dubious proposition and bigotry and segregation close many of the conventional roads to integration and assimilation, those same vices become compensatory opportunities — not "goods," but acceptable tactics in the struggle against systemic injustice. (The great German-American political theorist Carl J. Friedrich, who helped write the post-war German constitution, once suggested that corruption, like arsenic, though deadly, could actually be an aid to civic health in trace amounts.)



The great German-American political theorist Carl J. Friedrich once suggested that corruption, like arsenic, could be an aid to civic health in trace amounts.

In Brecht's towering play *Mother Courage*, one of her sons responds to a charge that he is exploiting army corruption by blurting out, "Thank God they're corrupt. Corruption is the equivalent of God's mercy. As long as someone's on the take, you can buy a shorter sentence, so even the innocent have a shot at justice." Katherine Boo shows how poor residents of Mumbai live Brecht's cynical idealism. "For some people," she once said in a radio interview, "corruption is one of the few opportunities that remain." In Mexico City and Kabul, where police corruption directly endangers local residents, Boo's lessons drawn from the Anawati slum near the Mumbai airport seem less convincing. Yet even in such cities (and Mumbai also suffers from police corruption in its approach





Informal workers might be forgiven for seeing corruption as a leveling down that lets them in the game

to rape, for example), corruption is more a testament to the failures of democracy in other domains — the persistence of segregation, the ignoring of poverty, the neglect of injustice. Those afflicted by the latter evils might be forgiven for seeing in the former some twisted form of good, of democracy itself understood as a leveling down that lets them in the game, however much the “rules” (calculated to disadvantage them) forbid it.

Ideally, of course, reforming urban inequality in jobs and other domains calls for systemic if not revolutionary change.

Yet as this discussion suggests, partial and contextualized solutions that work under the constrained circumstances of an unfair global society look like a better bet. But the denizen of cities are not currently positioned to affect those global problems, in part because urbanization is less voluntary in the developing world than in the West.

While historically, the West’s big cities *pulled* people off the land and into the city with a siren song of economic opportunity and the seductive excitement of fresh lives of possibility, much of the rapid population growth in the developing world’s megacities has been the result of people *pushed* off the land by unemployment and the kind of global market competition local agriculture can’t combat. It is the negative profile of the rural economy rather than the positive profile of the city that sends people scrambling to the metropolis. Yet jobs are low-paying in an unstable and lackluster informal urban economy, where their best hope is to find a ghetto squat and a position that allows them to scrape by, and one day perhaps move from the informal to the formal urban economy, and from squatting to owning a home. This is not simply naiveté. As one of Boo’s subjects tells her, “a decent life was the train that hadn’t hit you, the slumlord you hadn’t offended, the malaria you hadn’t caught.”

Still, in Mumbai and Lagos and Jakarta, having expectations still makes sense, which is one reason the poor make war on one another; why in cities like Mumbai, racist Hindu parties such as Shiv Sena campaign to “purge Mumbai of migrants from India’s poor northern states,” above all, Muslims.

There is something to fight over. These pale but seductive opportunities have led to astonishing growth in third-world megacities in the absence of either mobility or genuine hope. In China, for example, construction-worker colonies drawn from inland village China (where more than two-thirds of the country’s population still lives) constitute a new and troubling form of transient urban ghetto, one without roots in any traditional neighborhood and existing only as a temporarily-employed male enclave possessing no discernible “rights to the city.”

Poverty, injustice and segregation in every relevant urban sector, in both the first and developing worlds, remain major obstacles to urban equality and hence to the role of cities in nurturing democratic global governance. Too many of the urban advantages we celebrate, from creativity and culture to trade and diversity, have consequences that accrue to the middle and upper classes at the expense of the poor. What should be common city assets become zero-sum games in which one (rich) man’s redevelopment plan spells another (poor) man’s loss of center-city housing; in which a wealthy woman’s riverside playground is housed in former manufacturing warehouses from which poor women’s sewing jobs have fled. Too often then in this setting, city corruption is defined in ways that exempt white-collar criminality (bank redlining to enforce segregation, for example, or bundling and reselling mortgage debt to distant investors insulated from responsibility to borrowers), even as they highlight activities of the poor that, while illegal, might ease

their plight, if only temporarily. Inequality comes in many forms, and — appropriately, in this era of interdependence — these forms are intimately linked. Attack educational discrimination and it reappears as housing discrimination. Increase the number of working-class jobs and inadequate transportation blocks the poor from getting to them.

With the problems so ingrained and their origin at least in part associated with national and global forces outside the city, remediation is extraordinarily difficult. Only with innovation and imagination is inequality likely to be touched. Only if we are willing to look at the informal as well as the formal economy, and ignore the common wisdom about corruption and squatting and hidden capital, are we likely to find some partial answers to the burdens under which even the most progressive and prosperous cities labor. Only if the underlying and intransigent realities of urban segregation in all its forms can be addressed are we likely to instigate mitigation successfully. It is in this context that we have to re-examine corruption and ask whether a blanket condemnation is possible; whether vice is not relative — always undesirable, but understandable sometimes in a context of the greater evil of a wholly corrupt political and economic system.



# The Real Crime Problem Lies in the Formal World

Sheela Patel

As a person working on redefining inclusivity in city governance, I am often challenged by the people who have argued, well and based on evidence, that informality is a menace to a city’s development. And maybe when challenged by it — especially when the face of informality is violent, abusive and confrontational — there is a legitimate case to be made for using police and judicial systems to subdue, contain, or manage it. The challenge we face is to examine where cities will be in the future if this is the only method used to deal with informality.

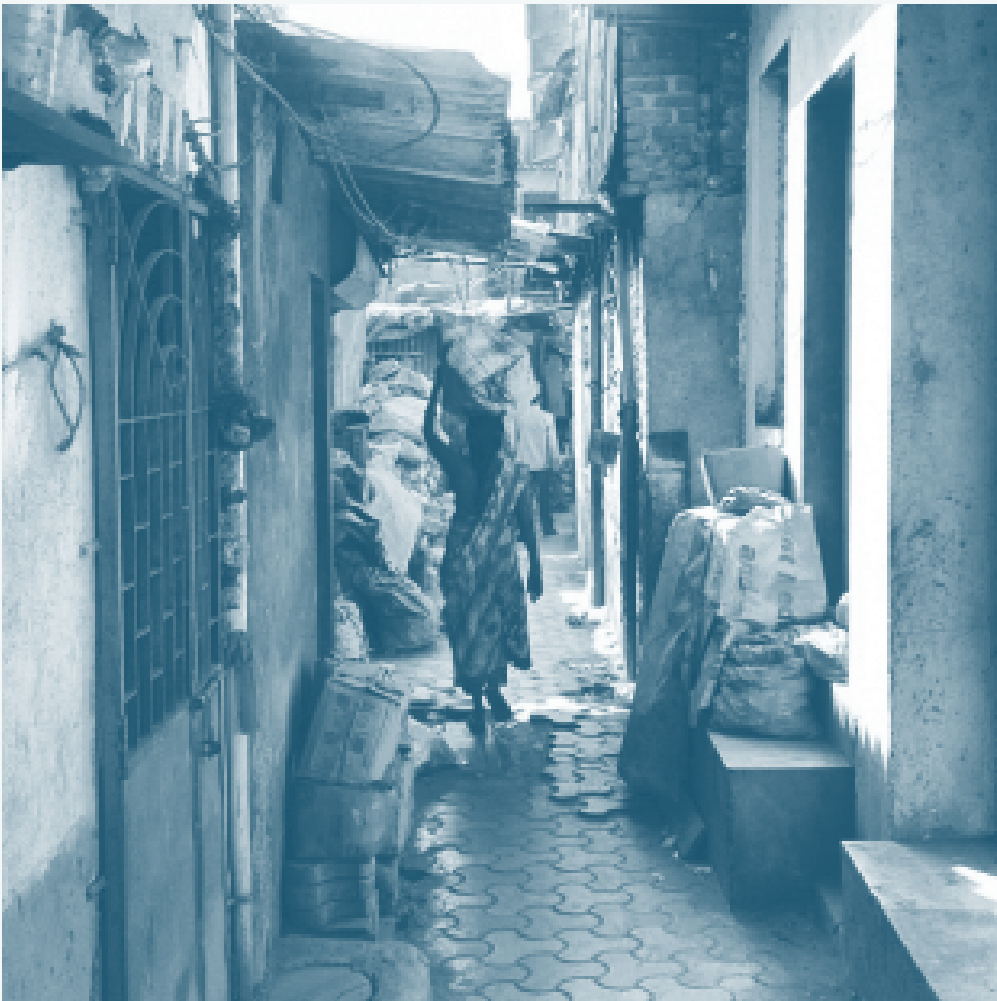
In many Asian and African countries, urbanization is clearly speeding ahead, and conventional regulatory frameworks that plan cities have clearly not been able to adapt to the global trends and local reality in which more poor, unskilled migrants are coming to cities. With no assets or skill sets, and kinship networks in the same situation as they are, they add to the city’s informality of work and habitat. Most of those in informal livelihoods serve the formal city in ways that we don’t acknowledge. Very few economists have sought to calculate how much they subsidize the lives of those who live and work in the formal institutions.

Traditional markets and vendors who brought goods to one’s doorstep have historically been part of the city. Only now, their numbers are expanding exponentially,

and unlike in the past when they melted into invisibility, they are in your face, seeking to live and work in and around the formal city streets and near our homes. Today the vendor and hawker pays the equivalent of thrice what a licensed vendor pays to bribe police and municipal workers; similarly, slum dwellers end up paying for stolen water and electricity — resources that are often stolen by the utilities’ own staff, local politicians and illegal entrepreneurs, and then sold at three to four times their original cost to the slum dweller or vendor.

In the face of industrial and manufacturing sectors being closed down, more and more assembly and manufacturing work is occurring in slums. With no safety nets the poor are forced to explore self-employment as hawkers and vendors, and those who are destitute to take up begging. Is the solution filling jails with people seeking to survive? How will we deal with the situation when another 25 percent of the world’s people come to cities in the next twenty years?

Crime and criminality occur across class and race, and for every petty criminal and thug on the street one could argue that the formal, respectable, upper-class elite steal much more per capita. So fears about how slums harbor thieves and criminals reflect the fact that we are looking only at the bottom of the food chain of illegality. The reality is that



the city does not police informal settlements, and being out of bounds makes them safe heavens for bad elements.

Just like transport planning has to move beyond investing in roads only for the private cars that 10 to 15 percent of the city owns, cities too have to be planned for all of those who will eventually end up living in cities. Those of us who see cities gearing up to attract foreign direct investments and imitating European cities where populations are shrinking, or being seduced by Northern planners who produce almost 24th century visions of the city, are accelerating this tension and conflict instead of using planning to create cities that make space for all.

A woman in Dharavi, Mumbai. Slum dwellers end up paying for stolen water and electricity—resources that are often stolen by the utilities’ own staff, local politicians and illegal entrepreneurs



# The World Needs More Slums

Swaminathan S. Anklesaria Aiyar

What constitutes the perfect city? It’s easy to make a list of utopian must-haves: Electricity and water round the clock; unpolluted air; plentiful road space for cars, bicycles and pedestrians; good educational and health facilities; lots of parks and museums. Those with an institutional mindset will argue for elected mayors with strong tax and administrative powers, giving them independence from callous state capitals.

No matter how desirable, such utopian longings fail to place cities in the context of a poor, rural society. Cities must not be elite islands in a rural sea of despond[ency]. They must provide income and social ladders for the poor and unskilled to climb up. Cities must be havens of opportunity for those without opportunity in rural and tribal settings.

This has an implication that will make many blanch — we must have more slums. These are the entry points of the poor into urban havens of opportunity. When urban land costs crores (millions) per plot, the poor can’t dream of buying land. Cities lack the funds for even basic facilities, let alone massive public housing. So rural migrants encroach on public land, creating shanty towns. These slums are eyesores — just looking at them makes urban folk shudder. Yet this should drive home to the elite how truly wretched rural India must be if poor people see more hope in filthy urban shanties than in the countryside.

Many visitors think the slums of Kolkata

are hellholes. On the other hand, visitors are enthralled by the beauty of Naxalbari, full of green paddy fields, bamboo groves and ponds. Yet, invisible to the elite eye, conditions in Naxalbari were horrendous enough to spark a massive Maoist uprising in 1967. Many poor folk from Naxalbari migrated to Kolkata — for them, its supposed hellholes were refuges from rural oppression and a path to prosperity.

Some optimists think that the answer is to make rural areas prosperous. This is escapism. India has 160 million hectares of cultivable land for 1,250 million people, one-eighth of a hectare per person. Even if the urban share of the population doubles from today’s 30 percent to 60 percent, rural land availability will be just one-third of a hectare per person. This is a recipe for endless poverty, and cannot be fixed by endless subsidies. The rural poor know this and so migrate, but urban elites remain in denial. They want the poor to somehow remain rural and not inundate their cities. That is both callous and escapist.

Some people see slums as hubs of sub-human existence and humiliation. But it is necessary to see beyond the surface filth. Dharavi in Mumbai has long been called the world’s biggest slum, with 6 lakh (600,000) people crammed into 175 hectares of swamps. Far from being a hub of despair, it is now Mumbai’s biggest industrial center, humming with activity after all its famed textile mills

have closed. Dharavi has 15,000 one-roomed factories, producing \$600 million in goods and services.

SPARC, an NGO dealing with slums, describes Dharavi well. “Here you will find an astonishingly wide range of economic activity — from those who make idlis to potters to tanners to manufacturers of airline cutlery and crockery. In Dharavi, there is a place for everybody and there is always work to be found. There are workers who make only Rs. 300 (\$5.50 USD) a month and there are a few entrepreneurs who even earn Rs. 300,000 (\$5,500 USD) a month. Today, 21 children of Dharavi we know of are in medical college, and more than 40 doing engineering courses. Dharavi is inclusive and cosmopolitan, home to the poor and the better-off, and most people are self-employed. Dharavi stands as testimony to the sweat and toil of the poor and the pulsating energy of entrepreneurs.”

This is not a tale of despair and humiliation. It is an inspiring story of poor people who have risen through grit and determination, seizing urban opportunities. It’s another matter that the government has been woefully remiss in providing infrastructure and social services. But these are government failures everywhere, not just in slums.

In the 19th century, Charles Dickens painted horrendous pictures of London’s slums, and American writers bemoaned the slums of New York. These writers failed to see that the fundamental dynamism of slums would in time convert shantytowns into prize real estate. Many Indians make the same mistake about our own slums.

Some prefer the Chinese route of bulldozing

slums and forcing migrants to return to villages. But I agree with SPARC that slum redevelopment must be done in democratic consultation with slum-dwellers.

The government has failed to do much to uplift the poor, but slums have done so. Land reforms have failed widely to legally distribute land to the poor. But by simply allowing and often legalizing unauthorised encroachments, state governments have “distributed” land to millions of poor people. This is obviously far from ideal: Efficient, benevolent governments would have done the job much better. But since governments are neither efficient nor benevolent, this is a way forward.

Economist Hernando de Soto said the real problem of the poor was lack of legal title to their unauthorized plots. Without title, they fear demolition, lack the confidence to build pukka structures, and cannot mortgage their land to get loans. But in India, democracy ensures that governments rarely demolish shantytowns, and regularize many encroachments before every election. More land has been distributed to the poor through this route than through formal poverty alleviation schemes.

I am oversimplifying, of course. Many slum-dwellers have been moved to new sites far from their workplaces. In other cases slums are controlled by mafia slumlords. Nevertheless, slums have been dynamos of productivity, social mobility and poverty reduction.

So by all means, let us have structural reforms that yield better governed, better run cities. We need better roads, electricity



and water supplies. But if cities are to perform their critical function of social mobility, we also need more slums like Dharavi. These should be improved, upgraded slums, but slums nevertheless.

# Why Africa Should Be Wary of Its ‘New Cities’

Jane Lumumba

Africa is bracing itself for the arrival of the New Cities. That’s the term being used by urban scholars to describe the continent’s next urban phenomenon: Comprehensively planned, independent, relatively self-contained communities, usually built from scratch, and large enough to provide within their borders housing, public facilities, socio-cultural opportunities and employment for their residents.

Some scholars have gone so far as to call the New Cities “urban villages,” distinguishing them from a “normal” city that gradually grows and evolves over time. New City projects emerging in Africa are planned urban areas, usually on the periphery of an older city, designed to meet their own residential, commercial, industrial and retail needs. The concept is not a novel one. Over a century ago, Sir Ebenezer Howard’s Garden Cities were an attempt to create new modern cities to right the wrongs of London during the 20th century. Ebenezer’s concept is now being applied in Africa, albeit under new and complex conditions. But of concern is that, with so many New Cities already in the pipeline, still no one knows what their impact will be. A vast urban experiment is underway, with not nearly enough study or forethought as to how these places will affect the economies, environments and lives of people who will live both in and outside of them.

Nairobi will soon welcome Konza, already being hailed as Africa’s Silicon Valley, and Tatu City, a \$2.8 billion USD project located just off the region’s new Thika Super-Highway. Just outside of Accra, Appolonia, nicknamed the “City of Light,” is a planned, mixed-use city that broke ground last year and is conceptualized as a “work-live-play” community. Lagos is eyeing the construction of Eko Atlantic, a city for 400,000 built on land reclaimed from the ocean. And Lusaka, Zambia is welcoming Roma Park, a residential and commercial development being built on 118 hectares of greenfield. The list of projects continues to grow as other African cities jump on the bandwagon. This trend in urban development calls for empirical diagnosis and analysis of the opportunities, challenges and implications of these emerging urban forms.

Based on the assumption of a shared longing for new urban spaces, these cities come with promises of impressive amenities and functioning systems that will enable the urban lifestyle most Western cities provide. And they’re branding themselves accordingly – they’re sometimes called Eco-Cities or Smart Cities — and boast that they will be more connected, global and sustainable than traditional cities.

What is worrying is that there is little recognition of place, economy, context and





A rendering of Konza, the Kenyan New City being hailed as Africa's Silicon Valley.

even poverty in these cities. This begs several questions. To whom do these cities belong? Who is planning them? Are they inclusive cities, or simply profit-driven businesses?

New Cities are private-sector driven with great support from naïve African governments that want to leverage their personal and political mandates with exciting new ideas. These governments are betting on two things. The first is that an emerging African middle class that will demand (and pay a premium for) high-quality urban space. And the second is that the economic recession in Europe will spur more “urban entrepreneurialism” — due to lack of lucrative opportunities and an already

saturated market in Europe, foreign private-sector companies are exercising urban neo-liberalism and place marketing in African cities.

But a great concern with these New Cities is that, from concept to construction, they silence or even outright exclude urban planners and managers, local governments and even the citizenry itself. Many New Cities are being built with input exclusively from architects, engineers and property developers. This lack of fundamental technical input from other stakeholders is worrying. For example, Tatu City in Nairobi is set to be developed on prime agricultural land. This land was initially a coffee

plantation, which happens to be an important foreign exchange earner for Kenya. This draws in the issue of land use, particularly in countries where there are weak regulatory frameworks and cultural influences on land ownership.

These cities also risk exacerbating the problems of spatial fragmentation, and social and spatial polarization. Many African urbanites are poor – Nairobi's urban poor, for example, are said to be 60 percent of the city's population. The sustainable agenda inherent in the designs of these New Cities is not feasible for the urban poor. Will informal housing or vending be allowed in these cities? Will the glass high-rises with their expensive cooling systems – functioning against the backdrop of unreliable electricity – exclude those who cannot afford to support these costs?

Though the consequences of these cities are speculative, Africa can learn from recent cases. The most relevant is in Angola. Nova Cidade de Kilamba was built by a state-owned Chinese investment company on an assumption of housing deficits and a need to provide mixed-use buildings in the outskirts of Luanda, the capital city. Today, this development is empty. The neighboring slum dwellers are unable to afford the expensive apartments, and better-off residents don't want to move away from the central business district's economic activity and amenities. It is clear that this project was not well thought through. Indeed, it was a fantasy and has remained so since its inception — an ominous sign for the many other New Cities popping up around the continent.



# How Cities Can Get Rid of Slums By Supporting Them

William Cobbett

After a decade of announcements that the world is now more urban than rural, there are signs that governments and agencies are finally taking notice. During the course of the next three decades, the waistlines of thousands of cities will expand to accommodate new populations — while the world’s urban population doubles, cities’ land consumption will triple.

To make this process as successful and as sustainable as possible, there is an urgent need for national and local policy makers to dramatically change their policy responses. Globally, the biggest cause of badly managed slums is not rural-urban migration, nor people squatting on public land, nor poverty itself. The biggest factor is wrong-headed policy responses, and ill-informed, outdated and clumsy administration, all underpinned by a hostile and aggressive attitude to the urban and urbanizing poor. Quite simply, bad policy creates most slums, and ensures that slums do not improve.

Instead, mayors and city managers can help their cities by accepting what exists and working with it.

Most urban growth takes place in existing cities, not new ones, and mostly in small- and medium-sized cities. The dominant form of planning is feet and facts on the ground, not color-coded zones on the Master Plan (if it

exists). Most city growth is informal, and development will be incremental as people improve their living conditions over time, as and when they can afford. Most employment is informal, too, with household enterprises dominant. The role of women is essential to stability and progress.

Slums disappear not through being removed, but by being transformed. Over time, the shack becomes a house, the slum becomes a suburb. This is how citizenship and cities are built.

Slum-dwellers need a helpful and supportive environment in which to improve their lives, and that of their fellow residents. Yet, too many governments spend their energies fighting rather than rewarding and encouraging these processes. Land is not made available, and the poor are either relocated to the margins, or forced to live in dangerous or distant places. Services are not provided, leading to the emergence of parallel markets, middlemen and price gouging. The urban poor’s rights are not respected, and they are not treated as citizens.

The problems and solutions are often located in the same place. Stop looking for magic. Dump the failed policies. Offer land, services, helpful regulations and support. Only then will real solutions emerge.





# Photo

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