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Garbage Everywhere What Refuse in India's Streets Reveals About America's Hidden Trash Problem

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By Noah M. Sachs

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In early 2014, I arrived in the southern Indian city of Bangalore, which just two years before had been paralyzed by a garbage-worker strike and a severe shortage of landfill space. The municipal government had responded to public anger over uncollected trash with decrees on waste segregation and composting that went unenforced, and by the time

bills itself as India's Silicon Valley, there are still putrid piles of garbage all around town. Bangaloreans accept open dumps in their neighborhoods as a fixture of the landscape, to be seen but somehow ignored.

Like many other Indian cities, Bangalore has a massive garbage problem—the product of rapid economic growth, overcrowding, poor urban planning, corrosive corruption, and political dysfunction.

As I walked around town and saw Bangalore's colossal chain of manufacturing, consuming, and discarding, I began to think about my own consumption habits. I'm a professor of environmental law and consider myself ecologically conscious, yet I live at the top of the global pyramid of consumption. Like most Americans, I easily consume more goods and services in one year than most Indians consume in a lifetime (33 percent of Indians earn less than $1.25 per day). As I eyed the piles of trash in Bangalore's streets, I began to wonder: Who really has the garbage crisis? Is it India, or the United States?

My search for the answer led me to sign up for an unusual tour of Bangalore. The "Trash Trail" is a nine-hour expedition on foot and by van through the city's wastelands. It's led by Poonam Bir Kasturi, the tireless director of a local non-profit called Daily Dump, which advocates for composting and better waste-management practices. Kasturi is one of dozens of Bangaloreans working to change the city's attitude toward garbage.

The Trash Trail may be the only tour of its kind in the world (you won't find it on the Ministry of Tourism's website). Kasturi promised that we would see trash-transfer depots, massive landfills, and the vast "informal" garbage sector where thousands of citizens make their living finding, sorting, and recycling garbage.

At 7:30 a.m. on a bright Wednesday morning, I boarded Daily Dump's van in the affluent neighborhood of Indiranagar. As we set out, Kasturi told us

that Bangalore's garbage troubles stem directly from its booming high-tech economy. The city's population of 10 million has grown by 50 percent since 2001, and at least 3 million more Indians are expected to migrate to Bangalore in the next decade.

"The city's aging infrastructure simply cannot keep up with the waste," Kasturi told us on the van ride. "It's 3,000 to 4,000 tons of garbage per day."

After about five minutes, we made our first stop: a road-side garbage dump where cows were feasting on the refuse. We were still in an upscale area, and I asked Kasturi how all this garbage ended up in the streets there. Her answer surprised me.

"My neighbors are purposely dumping it in these streets, and most don't see anything wrong with their behavior. In India," she went on, "waste is considered a threat to a person's dignity and status." Bangalore instituted door-to-door trash pickup in 2000—a forward-looking program in India at the time. But many residents believe their front door is too close to home to place garbage. Instead, they chuck their waste into these street-side dumps.

"Bangaloreans dump their trash in the streets not because they are poor, but because of habit and culture," said Kasturi. "'As long as *my* house is clean,' they think, 'what's the big deal?'"

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The enormous, highly toxic Mandur garbage dump has been the subject of mass protests and even hunger strikes. (Noah Sachs)

The garbage in the streets isn't just unsightly. It's also a public-health threat, serving as a prime habitat for rodents and mosquitoes that can spread malaria, dengue fever, and Japanese encephalitis. India already has one of the highest dengue infection rates in the world, and the number of cases keeps rising. "Garbage is like a bomb waiting to explode. It is a breeding ground for so many diseases," said one local physician. Many Bangaloreans depend on wells for their drinking water, and the trash in the streets also contributes to the contamination of the city's groundwater.

Our next stop on the Trash Trail was a trash-transfer station where small, three-wheeled rickshaws lined up to tip the neighborhood garbage into a large compactor truck. Urban infrastructure, when it works well, should be invisible, but this site was an eyesore. It was just a few yards from the balconies of luxury condos.

"When these condos were under construction, the developer paid the garbage workers to take their business elsewhere," Kasturi said. "But once the developer sold off the condo units to unsuspecting buyers, this trash-

transfer station returned. "

I noticed that two sanitation workers were standing inside the maw of the compactor truck, sorting through each bag of garbage by hand, without gloves, in search of something valuable to sell. These guys were garbage experts—they knew exactly which bags of trash to spend time on, depending on the affluence of the neighborhood where the waste came from.

M.M. Agarwal describes the hazards of living near a garbage transfer station. (Noah Sachs)

Not long after I arrived on the scene, I was approached by a distinguished-looking man named M.M. Agarwal, who said he had been living in a nearby apartment building for 30 years. Standing beside a sign that read "Dumping Waste Here is Illegal," he launched into a tirade about the many problems the transfer station had caused in his neighborhood, perhaps hoping I had pull with the local government.

"I have to keep my windows closed all the time because of the smell," Agarwal said angrily. "The local mutton shops dump their food waste here rather than paying for proper disposal. The mutton attracts birds, which then drop the rotting animal waste all over my apartment complex."

Agarwal was most upset with the city government for tolerating these

conditions. "People won't change their habits until they're forced to change," he said.

Around lunchtime, the van took us to the Taj Mahal of garbage: Mandur, one of the largest, nastiest, and most controversial landfills in the city. During the 2012 garbage strike, villagers near Mandur blocked the entrance to protest the landfill's poisoning of local water supplies. As a result, the city pledged to cease dumping at Mandur by June 1, 2014. When that deadline came and went this month, furious villagers again blocked Mandur's gates—until police dispersed the crowd and secured the site. Residents are now threatening hunger strikes, and the state government has given Bangalore four months to close the place down.

At 153 acres, about half the size of the National Mall in Washington, D.C., Mandur is unlike any landfill in the United States. Heaps of garbage spilled out of pits, and stray dogs roamed through the uncovered waste. Even though I wore a facemask, I couldn't avoid the overwhelming stench of methane, diapers, and rotting food. In this apocalyptic landscape, the only thing I recognized was an empty box of Kellogg's Special K lying near the road.

Despite ongoing protests, city administrators contend that the landfill must remain open to handle the city's waste stream as they scramble to establish alternative dumping locations, and more than 150 trash compactors continue to dump their loads at Mandur every day. Though it was built far outside Bangalore's ring road, Mandur is now surrounded by the exurbs of Bangalore. The city's residents may not want garbage at their own front door, but it's now amassed at someone else's.

At the landfill, I spoke with Ujjal, an emaciated man in his 30s who makes his living as a garbage picker, sorting through waste for eight to 10 hours a day to find any items of value to sell to recyclers. Ujjal said he came here about five years ago from West Bengal, 1,100 miles away, because of Bangalore's economic growth. The garbage, he figured, would be higher-end here. Ujjal said he earns about 180 rupees ($3.00) a day by scavenging at Mandur.

In the United States, it's easy to forget about garbage altogether. Poor

sanitation is no longer a major public-health threat the way it was between 1850 and 1920, when people left their garbage in the streets or tossed it in rivers. Today, most cities have door-to-door trash collection, and we have national standards for landfills, requiring plastic liners and groundwater monitoring at the sites. Urban cholera and typhoid outbreaks exist only in history books.

Still, in some ways, America's garbage crisis is even more profound than Bangalore's. Given the immensity of the garbage problem in the Indian city, I was surprised to learn that the average Bangalorean throws out very little trash: about a pound of garbage per day, or the weight of a grapefruit. The average American generates more than four times that amount, according to the U.S. Environmental Protection Agency, or more than seven times that amount, according to a more rigorous methodology developed by Columbia University and the *BioCycle* trade journal. We've nearly doubled our per capita output of garbage since 1960, to the point where we now generate 50 percent more trash than Western Europeans and two to three times more than the Japanese.

At Bangalore's Jolly Mohalla, every imaginable type of plastic can be traded in for rupees. (Noah Sachs)

These figures are only for municipal solid waste (MSW)—the waste we chuck from our homes, schools, and offices. It does not include agricultural waste, medical waste, construction debris, used tires, mining waste, and industrial waste. Taking all of this into account, each American is responsible for 35 tons of solid waste per year, or 2,700 tons over the course of his or her life. Imagine the weight of all the cars in a big rental-car lot at O'Hare or JFK airport. That's the average American's lifetime solid-waste footprint.

Our garbage doesn't pile up in plain view the way Bangalore's does. One reason for this is that we have vast open spaces where we can safely stash garbage out of sight, out of mind. My home state of Virginia, for example, imports 3.6 million tons of garbage a year from crowded northeastern cities, dumping it in rural landfills.

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Another reason is that America's $52 billion-a-year waste industry, which is controlled by big conglomerates such as Waste Management and Republic Services, remains remarkably secretive and opaque. In 2004, the writer Elizabeth Royte attempted to trace a single bag of garbage from her New York City apartment to its final resting place in a landfill. As she documented in her book, *Garbage Land*, every major step in the process took place behind high walls and barbed-wire fences. After weeks of effort, she secured an invitation to visit a landfill in Bethlehem, Pennsylvania, that accepts trash from New York City. But when she arrived, the landfill manager refused to show her around. After calling some company higher-ups to gain access, she finally reached a vice president. "Let me check with some lawyers," he said. He never got back

to her.

"Why was it so hard to look at garbage?" Royte asked herself:

> To me, the secrecy of waste managers—which was surely based on an aversion to accountability—was only feeding the culture of shame that had come to surround an ordinary fact of life: throwing things away.... I found that from the moment my trash left my house and entered the public domain ... it became terra incognita, forbidden fruit, a mystery that I lacked the talent or credentials to solve.

In the United States, the garbage problem goes way beyond our landfills. It extends to the global environmental impacts of our consumption—the natural resources and fossil fuels that are used to manufacture all our stuff, and the pollution and waste created as byproducts. Every day in the United States, for example, we use and then throw away nearly 88,000 tons of plastic; each month, we burn through 70 million tons of coal and release 500 million metric tons of greenhouse gases into the atmosphere. Our heaviest-polluting industries have migrated to other countries in search of cheap labor, and Americans are using the products they make without directly facing the consequences.

As I wound my way through Bangalore's streets in the Daily Dump van, I spotted numerous American brands out the window: Nike, Tommy Hilfiger, Levi's, McDonald's, Pizza Hut. But the United States doesn't just export products to India—it exports a culture of consumption, backed by billions in advertising dollars. Many Indians want what we have, and it's hard to imagine what will happen once India's middle class—now 300 million strong and growing fast—quadruples its consumption to match ours.

As Bangaloreans consume more luxury items, the composition of the city's garbage is changing—from food scraps and organic waste 20 years ago to mountains of plastic today. During the afternoon leg of the Trash Trail, we set out to explore this new frontier of plastic, which is processed by

workers in Bangalore's informal garbage economy. Roughly 60,000 people make their living collecting, sorting, and recycling materials—entirely outside the city's formal waste-collection process.

The massive market known as Jolly Mohalla is the epicenter of this churning economy of plastic. There, I spoke with Mohammed Humayun, who has run a tiny, storefront plastic-recycling operation for more than a decade. He knew the daily trading price for every type of plastic imaginable. Plastic bottles command the most money, at 25 rupees per kilogram, while plastic packaging and polyethylene sheets are worth only four rupees per kilogram. Outside his shop, women sort discarded plastic by color for 12 hours a day, while teenage *kabadi walas*, or household-trash collectors, continuously arrive on bicycle. Balancing giant loads on their bikes, these boys bring recyclable materials from all over Bangalore to Humayun's store and others just like it. (In India's garbage sector, women do most of the backbreaking work of sweeping streets, collecting waste, and sorting plastic, while men dominate the wholesale business of weighing and buying the recyclables.)

Khemparaj, a wire recycler, in Bangalore's Jolly Mohalla market (Noah Sachs)

At Jolly Mohalla, I saw workers recycling the plastic rings that hold six-packs of soda, dismantling broken bicycles to harvest the steel, aluminum, and rubber, and stripping off the insulation from wires to get at the copper entrails. One of these wire strippers, Khemparaj, told me that he earns about 450 rupees per day (about $7.80) from this tedious labor.

"I'm not just selling the copper," he told me. "I can also get a few rupees for the plastic insulation from the wires."

It's easy to admire this kind of resourcefulness, but there's a human cost to being the rear end of a city's chain of consumption. In the Dickensian workshops of Jolly Mohalla, I witnessed extremely dangerous conditions. Where workers were melting plastic, there was intense smoke and fumes but no ventilation fans. In fact, there was no worker-protection equipment of any sort. And dozens of children younger than 15 were toiling in the shops. (Even in the United States, sanitation work remains one of the most dangerous jobs in the country; in New York City, for instance, the fatality

rate for sanitation workers is twice as high as that of police officers, and seven times as high as that of firefighters.)

Back in the van at the end of an exhausting day, I inhaled the intense odor rising from my shoes. I had walked and talked garbage for nine hours, and stepped in waste more times than I could count. Back home, I had never given much thought to the intricate process that brings the waste from my door to the dump. Sociologists call this "distancing"—a human tendency to ignore the consequences of behaviors we can't see.

In the United States, our waste-management system is prettier and more sanitary than India's. Our garbage is not piling up in plain view. But our outsized consumption is causing outsized damage. We leave behind more waste than any country in the world, but we can't see our own footprints.

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