

Stanford SOCIAL INNOVATION REVIEW

Research
Doctor in Your Pocket
By Jessica Ruvinsky

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ECONOMIC DEVELOPMENT

The New Bottom Billion

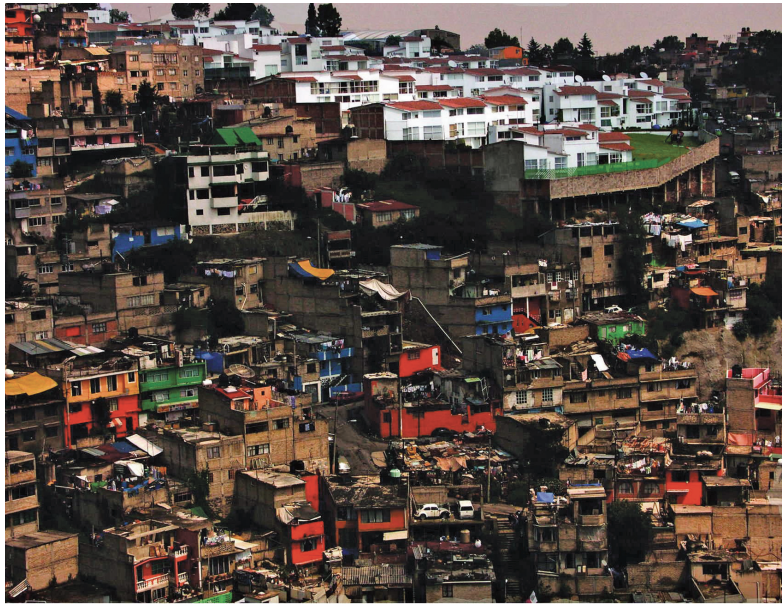
► Aid is increasingly focused on the “bottom billion” in extremely poor, mostly African, nations. But according to a new analysis, most of the world’s poor no longer live in these countries.

The 960 million poorest people on the planet—or three quarters of the 1.3 billion who make less than \$1.25 per day—are now in middle-income countries, says Andy Sumner of the Institute of Development Studies in Sussex, United Kingdom. What happened is that “most of the world’s poor live in a relatively small number of countries,

countries like India and Nigeria, which have become richer in average terms” and recently graduated from low-income to middle-income status, Sumner says. “But at the same time, poverty doesn’t seem to have fallen much.” The new wealth hasn’t been broadly distributed.

Back in 1990, it was true that poor people (93 percent of them) lived in poor countries. In such a world, ameliorating global poverty is more straightforward, Sumner says: “It’s about aid and resource transfer.” But when most poor people live in countries with substantial domestic resources, giving money isn’t enough. It “pushes development in ultimately a more political direction,” he says.

Traditional donors and international NGOs may move “toward thinking about how they can support progressive forces of change,” Sumner says. It is now even more important to “build up and support the expansion of local civil society in developing countries, so that



High-income housing sits atop a slum in Mexico City, which has the eighth largest GDP of any city in the world.

local NGOs can call their own governments to account.”

Fragile middle-income countries such as Nigeria and Pakistan may still benefit from development assistance, but governance and domestic taxation and redistribution policies are becoming more important. Emerging powers such as China and India (which give aid to other countries) are less and less likely to need or even want aid, and more likely to be concerned with coherence in policies on trade, migration and remittances, climate negotia-

tions, and tax havens.

Sumner’s analysis broadens the question of how to ensure a better world, says Nancy Birdsall, founding president of the Center for Global Development in Washington, D.C. “As fewer and fewer countries are poor in average terms

PUBLIC RELATIONS

Making the News

► The media introduce social movements to the masses, but how do social movements make it into the media? Among environmental groups, “there’s this small number of organizations that really capture the lion’s share of attention,” says Kenneth Andrews, associate professor of sociology at the University of North Carolina at Chapel Hill. And they aren’t the flashy, controversial ones you might expect.

Although most researchers study issues and organizations that already have made a big splash, Andrews and his co-author sampled all the environmental organizations in North Carolina and then read all the coverage that those 187 groups received in 11 major daily newspapers over a two-year period. “Our sample includes everything from grassroots, completely volunteer-run groups, to groups with a dozen or more staff who are working full time for the organization,” Andrews says. By far the most attention went to the more professional and formalized organizations, which used routine advocacy tactics and worked on issues with which reporters were familiar.

The results for environmental groups echo findings in other relatively mature and stable sectors of social movement activism. Among civil rights groups, “the one that dominates media coverage over the course of the 20th century is the NAACP,” Andrews says. “There are more radical groups and more radical tactics that come and go, but the groups

and house fewer and fewer of the world’s poor, should what used to be aid money go toward what are now increasingly called global public goods?” Perhaps the next step is “dealing with problems like climate change, or the need for more agricultural research, or health technologies that could be deployed in poor countries but less poor countries as well,” Birdsall says.

A careful look at world poverty throws a lot of conventional wisdom into question. To really help the poor now, says Sumner, “the first thing is to think about development way beyond aid.” ■

Andy Sumner, “Global Poverty and the New Bottom Billion: What if Three-Quarters of the World’s Poor Live in Middle-Income Countries?” Institute of Development Studies, 2010.

that have long-standing relationships to the media have a kind of legitimacy that makes them the obvious one to turn to when [reporters] are trying to understand what's happening." A confrontational organization can stage an occupation of a state building and call the paper, but coverage is steadier when the paper's calling you.

It's the professional organizations where employees find themselves answering the phone. "Reporters call Environmental Defense Fund (EDF) because of its science and economics and law expertise," says Georgette Foster, North Carolina media director for EDF, one of the most heavily cited organizations in Andrews's study. "The EDF strength in creating market-based solutions is something that reporters respect and trust."

EDF's position at the intersection of environment and economy is also important to its media success. "It's partly what the groups do that makes them effective, but it's partly what the media care about that allows them to be effective," says Andrews. Local papers will write about local economic and political issues, and an awareness of this coverage can help small movements gain visibility.

New organizations with fewer resources can promote themselves by "figuring out where the media already are, in a very practical sense, whether that's at city council meetings or at other kinds of community events," Andrews says. They should ask themselves: "What are the things that routinely get covered in the news, and what are the ways to make an organization's events or agendas relevant?" ■

Kenneth T. Andrews and Neal Caren, "Making the News: Movement Organizations, Media Attention, and the Public Agenda," *American Sociological Review*, 75, 2010.

LAW

From Graft to Golf

► "In India, as elsewhere in the developing world, the old business of corruption is meeting a new rival: the Washington-style business of persuasion." So commented columnist Anand Giridharadas in the May 18, 2006, edition of the *International Herald Tribune*.

Lobbying and bribery are both time-honored ways to seek influence. The most important difference between them, according to economist Bård Harstad of Northwestern University's Kellogg School of Management, is not that one is legal and the other a crime. It's that bribery doesn't last as long.

Whereas successful lobbying changes the rules, bribery only bends them. Harstad built a mathematical model to track and explain why bribery is more common in poor countries and lobbying in rich ones. "If you are bribing, you get permission to break the rule only once," says Harstad. "If you want to break the rule later, you have to pay again." For a small firm paying a small bribe, that is cost-effective. But in a thriving economy, corrupt bureaucrats essentially price themselves out.

"When the company grows, the bribes become bigger and bigger. Eventually it's cheaper for the big company to lobby to change the rules," says Harstad.

This analysis suggests a natural evolution away from bribery. But a closer look at the model shows

that corruption can be self-reinforcing. "The problem is that the more you invest, the more you have to pay in bribes. This then discourages you from investing," says Harstad. Without that investment, the firms don't grow and may never reach the threshold where they would switch to lobbying.

So how can developing nations escape this trap? Harstad's analysis paradoxically suggests that punishing bribery only reinforces it: High penalties for corruption merely increase the cost of bribing, further slowing growth. But that prediction is not necessarily borne out by the facts, says Charlie Monteith, counsel at White & Case in London and a key architect of the UK Bribery Act 2010. In the aftermath of 9/11, the US Department of Justice began enforcing the Foreign Corrupt Practices Act in earnest, says Monteith. "There has been a sea change in the last five to seven years. I see more ethical behavior, and it has, a lot of it, been prompted by enforcement action," he says.

It's not just a big stick that motivates change. "The car-

rot that's involved for poorer countries is development aid," Monteith says. For example, Sweden and the Netherlands recently withheld millions of dollars in health aid to Zambia after finding evidence of embezzlement. That loss has got to hurt. But if Zambia clamps down on bribery in response, losing development aid could ultimately turn out to be good for development. ■

Bård Harstad and Jakob Svensson, "Bribes, Lobbying, and Development," *American Political Science Review*, 105, 2011.

HEALTH

Doctor in Your Pocket

► Texting again at 3 a.m.? Your phone could tell your doctor. The habits and symptoms your smartphone can know about you are fast becoming part of a powerful medical toolkit. Mobile software applications collectively known as mHealth have the potential to extend the reach of health interventions far beyond that of traditional care, especially for chronic diseases. After all, treatments for diabetes, asthma, or obesity require everyday vigilance, not just occasional clinic visits.

New and valuable mHealth apps are coming out all the time. But for each one, the developer has to reinvent all the basic components, creating from scratch the data path from phone to caregiver. "The rate of innovation and the spread of this technology are held back because everything is coming out one siloed product or project at a time," says Deborah Estrin, professor of computer science at the University of California, Los Angeles.

Instead, Estrin suggests, the field could develop an open architecture in which



"Did you notice how he was suddenly interested in our sales pitch when I mentioned a substantial bribe?"

mHealth applications share common building blocks. Such an infrastructure could spark innovation in much the same way that the Internet's standard protocols revolutionized many sectors of the economy. Creating an mHealth app would enable the patient to report drugs and dosages, symptoms and side effects at any time, so the doctor could respond quickly and with more accurate data. "If you're doing teens and asthma, or you're doing overweight teens who are at risk of diabetes, or you're doing new moms who have not lost their pregnancy weight and are at risk of cardiovascular disease—all of these completely different diseases and demographics need basically the same components, but with very different skins and flavors to them," says Estrin. Specifically, every app needs

a way to prompt the user for information—How much does it hurt? What time did you take your meds? How high is your blood sugar?—to collect data and feed information back to the patient and the health care provider. The data also could come from smartphone sensors that capture how much the patient moves around or talks on the phone.

At the Department of Veterans Affairs' (VA) National Center for PTSD in Palo Alto, Calif., psychologist Julia Hoffman agrees. "The problems are so complicated that it doesn't make sense to struggle with them over and over again, and then to let other health care providers" do the same, she says. "Building this common infrastructure that we can tie into allows us to solve the most difficult problems just once."

One of those problems is privacy. On current versions of mHealth applications for the VA, self-assessments are maintained by the user on the phone, "and the only way to share the data is to actually bring the device to the providers, hold it up, and show it to them," says Hoffman. Estrin's alternative is a "personal data vault" that could securely capture and share information. "Let it go someplace where it's encrypted in the cloud in its full detail, and it's available only to you" and the parties you choose, says Estrin.

The mHealth revolution will make the most difference in underserved populations. "If you are wealthy and can afford to see a therapist twice a week and have a personal trainer, probably nothing can beat that," says Estrin. "So how can we start to bring that level of per-

sonalization to people for whom seeing a human being that often is just not in the cards?" ■

Deborah Estrin and Ida Sim, "Open mHealth Architecture: An Engine for Health Care Innovation," *Science*, 330, 2010.

ENVIRONMENT

Virtue or Else

► When a company breaks the law, the Environmental Protection Agency (EPA) would really rather it just *say* so. And many of them actually do. Under the EPA's Audit Policy, violators who voluntarily report themselves can get certain penalties reduced or waived if they commit to ongoing self-regulation. The companies set up internal compliance procedures and promise never to do it again.

"These firms have agreed to do something above and beyond

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what’s required by law,” says Jodi Short, an associate law professor at Georgetown University. But is that promise any more than window dressing? Short found that when firms commit to policing themselves, they do in fact have better compliance outcomes—under certain conditions. “There are things regulators can do to promote the meaningful implementation of self-regulatory commitments,” she says. In particular, watching them is more effective than warning them.

Looking at hundreds of industrial facilities subject to the Clean Air Act across the United States between 1993 and 2003, Short showed that surveillance of self-auditing firms increases compliance, whereas overt threats decrease it: Those companies that started self-regulating only when the EPA said it would punish them did not improve compliance outcomes. Coercion reframes self-regulation from a question of corporate honesty to a cat-and-mouse game, says Short, and “you can’t sustain voluntary regulation without a certain amount of non-calculative motivation—motivation to just do the right thing.”

The practice of imposing compliance auditing as a part of enforcement action settlements has become widespread across a range of fields, Short says. But her research shows it doesn’t help—a finding that field experience confirms. “For a self-audit to be effective, you really need to have major senior management buy-in,” says James Salzman, the former European environmental manager for S.C. Johnson, now a professor of law and environmental policy at Duke University. “And senior management buy-in is more likely

if it comes organically than if it comes at gunpoint.”

This is not to say that sanctions aren’t important. “There’s a lot of data to suggest that big sticks lead to better compliance,” Salzman says. But it is regulators’ watchful eyes more than their shaking fists that make firms follow through on self-policing promises.

Short’s findings suggest an important role for social movement activism. As the idea of a “corporate conscience” spreads across industries—from occupational health and safety to industrial food processor inspection to financial auditing—one of the most important motivators is visibility. Activists offer “another source of surveillance,” Short says. “They can provide another set of eyeballs.” ■

Jodi L. Short and Michael W. Toffel, “Making Self-Regulation More Than Merely Symbolic: The Critical Role of the Legal Environment,” *Administrative Science Quarterly*, 55, 2010.

CIVIC ENGAGEMENT

The Emotions of Aid

► “One death is a tragedy; 1 million is a statistic,” Joseph Stalin is supposed to have said. The more people we see suffering, the less we care. It’s an unfortunate quirk that psychologists so far have blamed on our brains: Humans are tuned to individuals, the thinking goes; we are just not capable of feeling compassion for whole groups.

A new study calls that comfortable conclusion into question. “The collapse of compassion is an active process,” says Daryl Cameron, a doctoral candidate in social psychology at the University of North Carolina at Chapel Hill. “It’s not some passive limitation on human experience. It’s the end



A mother holds her malnourished child at a camp for internally displaced persons in Kebkabiya, North Darfur.

eight victims compared to one.

This suggests that people are perfectly capable of responding emotionally to groups. They just steel themselves against it. “If you really took everything to heart, to the full magnitude that all these disasters truly deserve, you’d probably be sitting home rocking yourself in a closet all day,”

result of an active choice not to feel something.”

Cameron designed a series of experiments to find out why four people in pain don’t get quadruple the sympathy of one. In one test, he had 60 college students read about one, four, or eight children from Darfur. The students who said they were better at regulating their emotions—who don’t easily lose focus or control, and usually know how to make themselves feel better—reported being less upset by multiple Darfur children in crisis than by one. In another experiment, different students reading about these same children were told either to let themselves fully experience their emotions or to think objectively and be detached. Again, those who proactively regulated their emotions showed a collapse of compassion when viewing

says Elizabeth Dunn, a social psychologist at the University of British Columbia who was not involved in the research. “We need to be able to cope.”

Our capacity to empathize with a large number of people is good news for disaster relief, says Cameron. “If it is a choice, rather than a constraint, then we can try to get people to decide differently what they want to feel, and toward whom.” The bad news is that we seem to care only when we don’t have to act. Cameron’s other experiment compared students who had been prompted with the idea of a donation with students who hadn’t. “When people did not expect to have to help on the basis of their emotions, they experienced more emotion toward eight victims than toward one victim,” he says. Opening your heart is a lot easier when there’s no expected cost. ■

C. Daryl Cameron and B. Keith Payne, “Escaping Affect: How Motivated Emotion Regulation Creates Insensitivity to Mass Suffering,” *Journal of Personality and Social Psychology*, 100, 2011.