



ISSUES IN BRIEF

Seeing Hunger through New Eyes: From Lack to Possibility



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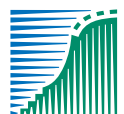
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Facing simultaneous economic and ecological collapse, people the world over are experiencing profound psychological disorientation; the stories long used to make sense of the world and to envision the future have failed. In such moments, we have choice: to retreat in fear or to dig to the crises' roots. On second thought, digging might be unnecessary, for when a tree falls, we can for the first time see its roots. Today, the toppled "tree" is our increasingly globalized economic system, and what is the deepest tap root now exposed?

To perceive its root we first must take in the full depth of our collective failure: while earlier in this decade, development experts expressed dismay that hunger was spreading by fewer than ten million a year, in just the last two years hunger has grown by over 100 million — bringing its toll to nearly a billion. Higher food prices in 2008 alone may mean 44 million more children "suffering permanent cognitive and physical injury" due to malnutrition, notes the World Bank. To face heartbreaking retreat, we have to ask more boldly than ever: why are we as societies creating a world that we as individuals abhor? After all, no one, anywhere, gets up in the morning muttering: "Yes, yes! Today I am going to make sure another child dies of hunger and disease"; yet it is happening every day, 30,000 times.

Gradually, with a lot of help, I came to see that there's only one thing powerful enough to make human beings create as individuals a world violating our commonsense and sensibilities. *It is the power of ideas.* We humans create the world according to largely unconscious mental maps. They determine what we see, cannot see, and therefore what we believe to be possible.

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**agriculture, nature
and food quality**

So the challenge is not to reconstruct what we've lost. It is to become aware of our faulty mental map and then to see with new eyes.

My first clues as to the inadequacy of the dominant mental map came in 1968, as I began the research that led to *Diet for a Small Planet*. Experts warned that we had hit Earth's limits. But I soon realized that we were — and still are — actively generating scarcity from plenty. The world produces more than enough food to make us all chubby, even on the leftovers: what's left over after feeding more than a third of the world's grain to livestock, and after turning a third of the world fish catch into feed — and, the latest, feeding corn to cars via ethanol.

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And there's *still* enough — for now. The world produces 15 percent more calories per person than in 1970 (FAO, 2000).

Yet the frame of scarcity still defines the debate. Within this frame, we lack not only food but just about everything — from energy to parking places. I've termed it the “premise of lack of goods and goodness.” It drives us single-mindedly to focus on production, while blinding us to the obvious:

that dependence on costly (and eco-destructive) inputs and ever-larger farming operations (justified as “efficient,” despite contrary evidence) ends up undercutting people's access to what is produced (Rossett, 1999). So we continue to create more food and yet, at the same time, more hunger.

The other face of this premise is that of a “lack of goodness”: the belief that human beings are — if one strips away our pretenses — simply selfish, materialist and competitive. From here it follows that we can't possibly deliberate in order to arrive at paths benefiting us all, the foundation of democracy itself. No, best turn over our fate as much as possible to experts and officials — and even better, to an automatic, infallible force shielded from human tampering. Ronald Reagan believed he found it: “The magic of the market.”

Market exchange has served human society for millennia, certainly, but in the last 50 years we've hit upon a peculiar variant: a market driven largely by one-rule, by highest return to existing wealth — corporate chiefs and shareholders. By this rule, wealth accrues to wealth until one family in the U.S., the owners of Wal-Mart, has as much wealth as 40 percent of our population (Reich, 2007); and worldwide, 80 percent of us live in societies where inequalities are worsening (UNDP, 2005). Extremely concentrated wealth then infuses itself into public decision making and we end up, in effect, with “privately held government.” US lobbyists, for example — largely serving a wealthy minority's interests — outnumber by more than two dozen to one representatives elected by American citizens to serve their interests (Center for Responsive Politics, 2009).

Where does this spiral of concentrating power leave most citizens? Feeling powerless, sensing their own actions to be futile. And here is the rub: because solutions to today's complex, pervasive problems entail changes in behavior involving us all, they cannot be solved simply from the top down; they rely on the active engagement of citizens who know their voices count. Thus, feelings of powerlessness, paralyzing citizens, are arguably the greatest threat to our planet's future.

Aligning Social Rules with Human Nature and with Nature

If so, the central question on which our future hinges is this: how do we transform powerlessness? In its deepest sense, empowerment depends on aligning ourselves with what

we now know about our nature, for only then is honest hope possible. We can begin by exploring how the prevailing frame — based, as noted, on the premise of lack — is mal-aligned with nature, including our own.

The not-so-grand sweep of human history, as well as laboratory experiments, reveal a similar truth: not a few of us, but most of us, will commit cruel, even brutal, acts under the right — err, the wrong — conditions. We now know the Holocaust was not the product of a few crazed leaders and twisted exterminators. Many ordinary civilians also carried out the genocide. Or consider Stanford professor Philip Zimbardo's infamous 1971 prison experiment in which normal young people were divided into roles. The experiment was designed to last two weeks, but on the sixth day Zimbardo halted it, as "guards" had begun brutalizing "prisoners," causing emotional breakdown using techniques eerily similar to those in Abu Ghraib prison decades later.

In real life or in the lab, what conditions have proven to bring out the worst — in most of us, not a few of us? At least three: extreme concentration of power, in-group/out-group scapegoating and anonymity. And, frighteningly, the dominant world order — wealth in ever-fewer hands controlling ever-longer and more anonymous supply chains — generates precisely these three conditions.

Equally obvious, however, are hardwired pro-social capacities: empathy, cooperation, fairness and efficacy. MRI studies reveal, for example, that when we cooperate areas of our brains are stimulated that are the same as when we eat chocolate (Angier, 2002)! Aware that our individual survival depends on community, which unfairness tears apart, it is quite understandable, as Adam Smith wrote, that humans are "in some peculiar manner, tied bound and obliged to the observation of justice."

Acknowledging the truth of our mixed capacities is liberating. We're then able consciously to design rules and norms keeping the worst in us in check while unleashing the best. They are the flip side of what elicits the worst. They are rules and norms encouraging the ongoing creation and dispersion of power, mutual accountability, and thus basic fairness. They help to dissolve anonymity and in-group/out-group scapegoating.

In other words, to seize this horrific crisis and turn our planet toward life requires not a leap of faith but a giant jump onto firmer ground. It means we must reject faith-based economics which tells us that if we only produce more we can alleviate suffering, and move rapidly toward evidence-based economics, with our laser focus on re-aligning human relationships and our relationships with our ecological home.

A Shift in Lens — from the Quantity Things to the Quality of Relationships

This transition is already underway, though largely invisible. It shifts our lens from a focus on ever-more things to a focus on power. I use the word power in its original Latin meaning — our capacity to act. Healing our beleaguered planet depends on consciously celebrating the human need for agency and, on that basis, generating relationships of mutuality in which power is co-created.

To move in this direction — given that as creatures of the mind, we humans are creatures of story — we can, through empowering stories, spread the emergent, new, evidence-based way of seeing.

India, the High-Tech Miracle?

Through the dominant lens, India is the rising economic star, but this view misses two aspects of the much more important story: nine out of ten Indians still work in the informal sector, where three-quarters make less than 20 cents a day (Sengupta, 2009). In India more people suffer from undernourishment than in Sub-Saharan Africa, and that number had been rising well before the current economic crisis. While we in the North hear only of this country's high-tech information boom, as of 2004 this sector employed fewer than a million Indians, or one tenth of one percent, according to the *Financial Times* (Joshi, 2004).

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Also absent in the media-fed view of tech-booming India is employment with dignity that poor urban dwellers and villagers themselves are creating, relying not on centrally controlled capital but on relationships of mutuality. In just three decades, for example, 12.3 million rural Indians, mostly women, many landless, have created a network of 100,000 village-level dairy coops — generating many times the number jobs the high-tech information industry boasts. Although these cooperatives provide over a fifth of the country's total milk supply, few beyond India have heard of them (World Bank, 2008, 14).

The power of the dominant scarcity frame allows for only one economic story, blinding most of us from realizing that it is likely that more people worldwide are members of cooperatives — 800 million, says the International Cooperative Alliance — than own shares in publicly traded companies. Cooperatives also provide one-fifth more jobs than do multinational corporations.

Food Independence in Andhra Pradesh

Staying in India for a moment, consider another breakthrough that cracks the dominant frame and is emerging in a context of tragedy. From 1997 through 2006, 166,000 Indian farmers committed suicide in part responding to overwhelming indebtedness. Many had experienced catastrophic losses when Monsanto GMO cotton seed, for example, failed to yield promised returns. They ended their lives by drinking pesticide.

The southern state of Andhra Pradesh, termed the “pesticide capital of the world,” ranks second in farmer suicide. When the human misery there became too great, a few years ago civil society organizations began initiatives to reduce farmer debt driving the epidemic. Credit went to rural women's self-help groups for a non-pesticide approach. The state rural development ministry then supported the movement.

Rejecting genetically modified seeds and using natural pest-control practices did not significantly affect farmers' yields. But without expensive inputs, costs went down. A photo in the journal *Seedling* shows a large chart in one village center displaying for all to see the outcomes of contrasting farming options: with lower costs, farmers using the non-pesticide approach enjoy 23 percent more net income than their chemically dependent neighbors, and farmers report their health improving as well (GRAIN, 2008, 27-29).

Foregoing chemical treatment is also allowing more complex human and ecological relationships to emerge. Simple monoculture and dependency on distant markets are giving way to diverse cereals, fodder and fuel wood for exchange locally. With varied crops maturing

at different times of the year, a farmers' income is spread out. Local entrepreneurs, many former pesticide sellers, have begun re-instating and further developing natural pest control potions to sell, made from the ancient neem tree and other local ingredients such as cow dung and chilies.

The non-pesticide movement has spread to 3,000 villages across 18 of the 23 districts of Andhra Pradesh, reaching 340,000 farmers (Misra, 2009). The state's agriculture minister has set the goal of 2.5 million non-pesticide acres within a few years.

A Different African Story

If India is framed as a winner in the global economic race, Africa is cast as the loser. We hear only of the continent's degraded soils, absent infrastructure, and endless wars.

What's to be done? For many aid and development agencies the solution is clear: poor African farmers have been left out, so bring them onto Jeffrey Sachs' modernizing "ladder." Help them buy into, literally, the dominant model in which abundance is purchased. Link small farmers to corporate vendors of new seeds, fertilizers, pesticides.

This solution starts with *things*, more things, within a construct destined to perpetuate and intensify existing, extreme imbalances of power, and thus to deepen dependencies -- both proven to bring out the worst in us. To break the downward spiral, we need a new, evidence-based story.

Burkina Faso, in the Sahel region of Africa, ranks third from the bottom in the Human Development Index of 177 countries. In early 2008, as food prices rose there, riots shut down the country's main towns. Within Burkina Faso, soils in the northern Yatenga region had long been viewed as the most degraded. Government agricultural extension efforts failed, and in 1970s and 1980s environmental degradation, drought, harvest failures and famine brought despair. Many left. But despair also triggered something new.

Farmers and non-governmental organizations' technicians started to experiment. Farmers began to reestablish and improve on traditional planting pits called *zai* — shallow holes that collect rainwater and to which farmers add manure. The compost attracts termites that dig channels and digest organic matter, making it easier for plants growing in the pits to absorb nutrients. The approach can rehabilitate "rockhard, barren land" and quickly increase yields, according to a report for the International Food Policy Research Institute.

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Civic groups began bringing in visitors, helping to spread the approach. Then a local farmer started an Association for the Promotion of *Zai*, and he now holds an annual “*zai* market,” attracting farmers from about 100 villages who share experiences. In a nearby area, another farmer began a “*zai* school”, and his district association of such schools now claims about a thousand members.

In Burkina Faso in only 15 years, farmers using *zai* have made tens of thousands of badly degraded acres productive. And, with the help of development organizations, contour stone bunds that reduce erosion have been built on at least 250,000 acres. With added manure,

the results are stunning: cereal yields jumping sevenfold or more without chemical fertilizer (Kabore, 2009).

Since the 1980s in neighboring Niger, moreover, a similar farmer-engaged process of regenerating cultivated fields is succeeding on at least 12.5 million acres (International Institute for Environment and Development et al. 2008), which probably makes it the largest positive environmental transformation in Africa — a “spectacular scale,” says soil and water conservation specialist Chris Reij.

A Rarity?

Not exactly. A survey of 45 sustainable agriculture initiatives in 17 African countries involving 730,000 households found that agroecological practices substantially improved food production and household food security. In almost all these projects, cereal yields improved by 50 to 100 percent (Pretty, 1999, 253-274). Author of the survey Professor Jules Pretty emphasizes that “new configurations” of “human relations [are] prerequisites for improving nature.” Behind sustainable success, he notes, is trust within organized groups generated through what he calls “social learning” in which farmers participate directly and share what they learn (Pretty, 2002, 154-157).

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Such a process seems relevant to the breakthroughs in Niger, where, according to Reij, “some of the doom and gloom stories about Africa’s drylands are not based on facts, but on fiction.” When he told a leader of a Niger women’s group that experts continued to report the Sahel degrading, how did she respond? “These experts have never visited us.”

Shifting the Frame

The dominant scarcity frame scares us into believing that the alternative approaches described above are not possible. We are taught to believe that we can’t have a future in which we relate to the earth healthfully and are still able to meet survival needs. In the summer of 2008, George Bush’s science advisor said publicly, “If everybody switched to organic farming, we couldn’t support the earth’s population — maybe half.”

The opposite is true.

A multi-disciplinary study at the University of Michigan concluded that if the whole world shifted to sustainable, organic practices, our total food supply could increase by about half (Badgley et al, 2007, 91). And, this approach, which enables the dispersion not concentration of power, means that the increase in output is more likely to reach those who most need it.

Note well: in these significant examples of turnaround, few things from afar appear to have been bought or sold. There’s no role for Monsanto or Cargill in this model in which farmers are gaining by learning, creating, and sharing. The key is a shift of frame from powerlessness to possibility, from bringing in more things to building new relationships of mutuality.

The *zai* approach means not new products but new practices — in this case doing more to the land. But equally important are approaches doing less to the land — including “conservation agriculture” based on the avoidance of continuous mechanical soil disturbance. On average conservation farming reduces by half the farmer’s workload, and mechanized farms can save

up to 70 percent in fuel costs. In 25 years conservation farming has spread to nearly 250 million acres worldwide — a reach almost equal to acres Monsanto claims are planted with seeds carrying its genetically modified traits.

Many have heard of genetically engineered seeds, of the “miracle” of India’s technology boom, and of starvation on the degraded land of the African Sahel. But why have so few heard of the Indian dairy coops’ success? Or the local, living economy turnaround in Andhra Pradesh? Or the *zai*-pitted, now fertile, fields of West Africa? Or conservation tillage?

The stories of these successful alternatives do not fit within our mental maps, and understandably, powerful institutions, who reap perceived benefits in the dominant map, are fighting hard to block any wider vision.

To shift one’s frame in order to perceive possibility is a very personal undertaking. It starts, I believe, with a willingness to relinquish personalized blame and boldly to examine the exposed roots of the crisis. We can begin by acknowledging that so many societies’ rules and norms, which we have accepted unquestioningly, are actually mal-aligned with nature and with human nature; they are drawing out the worst in us, even encouraging the greatest irrationality of all — the destruction of our own life-support systems.

Because human beings do not leap into a meaning void, developing “pictures” of living democracies emerging and creating relationships of empowerment is just as critical as a clear-headed critique of the dominant frame. Shifting to the lens of power, we begin to weigh every proposed program, legislation, or direction by asking: does it dissolve the conditions that elicit the worse in us — by dispersing power and accountability and reinforcing transparency and inclusion? In other words, does it generate conditions that bring out our proven pro-social capacities?

I believe that solutions are known, not just to the crisis of hunger but to our planet’s other major challenges as well — from climate change to terrorism. If true, then the only thing we have really to worry about is the widespread feeling of powerlessness, preventing so many from finding the courage to work for solutions that already are evident.

If true, then nothing is more important to our future than disciplining ourselves to search out stories of possibility — spreading them not as panaceas but as proof that, if we crack the counter-factual frame of lack, we have a fighting chance of turning our planet toward life. Since human beings didn’t evolve to be couch potatoes and whiners — and since acting is infinitely more satisfying than sitting back depressed — that confidence in possibility may be all most people need to stand up to the false story justifying life-destroying concentrations of power. It may be all we need to jump in and to give our all in this momentous time of planetary opportunity. ●


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