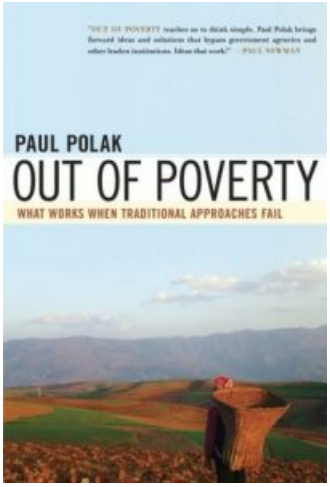

Book Out of Poverty

What Works When Traditional Approaches Fail (BK Currents)

Paul Polak
Berrett-Koehler, 2008
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Recommendation

Free-market advocate Paul Polak is an atypical poverty expert. He compellingly argues that handouts do not alleviate poverty and might make it worse. Instead, he insists, the true solution to poverty lies in unleashing the poor's entrepreneurial power. Polak says successful entrepreneurs like him are the ones who can help the poor make more money. His company designs cheap water pumps and irrigation systems that sell for a profit while helping subsistence farmers make more money. Although he frequently repeats the same points, Polak's treatise is a lively read. *BooksInShort* recommends Polak's point of view to readers who seek a contrary – and practical – perspective on the problem of global poverty.

Take-Aways

- Worldwide some 800 million people are subsistence farmers, earning about a dollar a day.
- Donors have directed billions in charity at the abjectly poor, yet their numbers grow.
- The true solution to global poverty lies in helping subsistence farmers produce more crops and earn more money.
- Poverty experts rely on three flawed solutions: charity, national economic growth and the largesse of big business.
- Ask developing-world subsistence farmers why they're poor, and they'll give you an obvious answer: They can't make enough money.
- Small-plot farmers typically grow just enough to stave off starvation.
- With irrigation and better fertilizer, dollar-a-day farmers can grow and sell enough produce to make $5 a day, middle class by rural developing-world standards.
- Treadle pumps and drip irrigation could move poor farmers to prosperity.
- Designing products for the poor requires visiting them where they live.
- Most companies focus on designing products for the richest 10% of the world's population while ignoring the poorest 90%.

Summary

From Subsistence to Middle Class

Millions of poor families worldwide eke out a meager subsistence by growing their own food, selling whatever crops they don't eat and working odd jobs. Some 800 million people scrape by, earning less than a dollar a day while cultivating an acre or less. These small-plot farmers live across Africa, and in Bangladesh, Nepal, India and other developing-world locales. Such farmers often grow rice and vegetables during the rainy seasons, but they lack the knowledge and resources to raise crops during dry times, when their produce is more valuable. By investing in affordable irrigation systems, and learning how to make fertilizer from manure and human urine, subsistence farmers can dramatically increase their production and their incomes. Farmers who follow this strategy have boosted themselves from shoestring budgets to

middle class, at least by the standards of their countries – where $5 a day can be considered a comfortable living.

> "Working to alleviate poverty is a lively, exciting field capable of generating new hope and inspiration, not feelings of gloom and doom."

Most poverty experts miss these common-sense solutions. They rarely visit subsistence farmers to ask what they need. As a result, rich governments flood poor countries with billions in aid, only to see the money disappear to corrupt bureaucracies or misguided projects. The money that does reach the intended recipients never quite accomplishes its goal because the aid invariably provides an artificial, temporary boost to subsistence farmers, but no lasting change in the way they live and do business. Poverty's true solution lies in free markets. Entrepreneurs must find out what subsistence farmers need and how much they'd pay for it, and then sell it to them in a way that creates profitable, sustainable businesses. Author Paul Polak is such an entrepreneur – he has designed and now markets low-cost drip irrigation systems that are sold to developing-world farmers.

Twelve Steps to Profitable Products for the Poor

Most entrepreneurs focus on rich consumers and sell costly products. Ignoring the impoverished masses means missing a massive opportunity. Developing a successful product for the poor requires entrepreneurs to take 12 steps:

1. **"Go to where the action is"** – Whether you're working with the homeless in the U.S. or poor farmers in Asia, get out of your office and interact with your consumers. Go talk to the homeless; you might discover a business in cheap storage lockers. Visit small, subsistence farms; you might find a demand for fertilizer.
2. **"Talk to the people who have the problem and listen to what they say"** – Agricultural experts in Bangladesh in the 1990s were dismayed that subsistence farmers wouldn't apply full doses of fertilizer to their crops in the rainy season, even though that would increase their yields. But the farmers had a logical reason for hoarding some of their precious fertilizer: Once a decade, a major flood would inundate their crops, carrying away all their fertilizer, so their decision to use only as much fertilizer as they could "afford to lose" was actually rational.
3. **"Learn everything you can about the problem's specific context"** – Polak successfully sold treadle pumps in Bangladesh, where these simple pumps work well because the water table is high. Where water needs to be lifted more than 27 feet, treadle pumps don't work. The lesson: Poverty doesn't have a one-size-fits-all solution. The best options for each farmer hinge on a variety of factors. What types of crops grow in which season? Who's competing at the local market? Is cheap farm help available?
4. **"Think big and act big"** – To truly make a difference, look for an innovation that could help millions of people, not just thousands. A billion people need eyeglasses but can't afford them. Think big: The right combination of low-cost manufacturing and efficient distribution could deliver $2 glasses to hundreds of millions of poor people.
5. **"Think like a child"** – Children have a way of reducing problems to their simplest form, unfiltered by education, training and experience. Polak was trying to help Brazilian farmers learn to shell and dry nuts. Many villagers owned small clay furnaces for drying flour, so Polak adapted their furnaces for drying nuts. Thinking like a child led to a simple but practical answer.
6. **"See and do the obvious"** – Of course, the obvious isn't always evident. It took Polak years of research and hundreds of interviews with poor families to arrive at a not-so-obvious conclusion: Millions of people farm small plots of land. Eradicating poverty requires products and processes that make these plots more productive.
7. **"If somebody has already invented it, you don't need to"** – Polak thought he had created the idea of drip irrigation, a way of watering crops by putting holes in plastic pipes and letting a trickle of water slowly quench the plants. He soon learned Israeli farmers had used it for decades. So Polak only had to customize it so it could be made and sold cheaply to subsistence farmers.
8. **Shoot for profits and scale** – Aid workers all too frequently focus on profitless projects that are unsustainable. In Somalia, the International Labor Organization taught women refugees how to make and sell soap. Alas, the soap was of poor quality and more expensive than fine imported soaps. The aid workers wanted to boost the refugees' self-esteem, not their income. Yet, what could boost a refugee's self-esteem more than earning enough to be self-supporting? Forget squishy goals like self-esteem. Set measurable goals, such as profitability and scalability.
9. **"Design to specific cost and price targets"** – The refugees were learning nothing valuable by apprenticing themselves to make overpriced soap. However, if they had learned how to buy materials cheaply and set a competitive price for the finished product, they would have gained knowledge that would help lift them from poverty.
10. **"Follow practical three-year plans"** – Changing the world by helping millions of poor people is an audacious, daunting goal. Without a plan and specific action, such a goal is little more than talk. To make big goals attainable, break them into smaller three-year goals. That creates enough of a challenge to sustain your motivation, but not such a Herculean task that you give up the battle.
11. **"Continue to learn from your customers"** – When Polak introduced drip irrigation systems in Nepal, first-year sales were promising. But sales slumped in the second year. Investigation revealed that many farmers believed that growing vegetables during the dry season was impossible, even with irrigation. The belief had no scientific basis; it was just conventional wisdom. Polak sent his local salesforce to dispel the myth.
12. **"Stay positive"** – Any innovator faces negative opinions. When you develop products for the poor, critics claim that if there were a demand for the product, someone would have introduced it long ago. Polak faced this argument against his treadle pump and his irrigation systems. The truth is, few are developing products for the poor. Some 10 million families might buy drip irrigation systems – a huge, ignored market.

Three Myths of Global Poverty – and One Truth

Poverty experts, charity workers and government officials invariably fall prey to three myths about ending poverty:

1. **Charity will end poverty** – Influential leaders often repeat this old saw. For decades, the World Bank, UNICEF and others have sent boatloads of cash to poor people. Yet they're still poor. The World Bank has delivered some $586 billion to Africa over the past four decades, yet its per capita income has refused to budge. From 1990 to 2002, the share of sub-Saharan Africans living on $1 a day remained at 44%. Charity creates problems. True, education, health care and other infrastructure measures require charity. But the real road out of poverty doesn't hinge on handouts. Only encouraging free markets and the entrepreneurial drive of developing-world residents will make a dent. In fact, subsistence farmers already are scrappy entrepreneurs – they just need to learn how to harness their energy in profitable ways.
2. **"National economic growth will end poverty"** – Economic growth benefits the educated classes and urban workers near factories. Growth bypasses rural

areas where subsistence farmers live. Even rich countries with fast-growing economies suffer poverty. In the U.S, 13% of the population was poor in 2005. In China and India, millions face poverty, in spite of their nations' astronomical growth.

3. **"Big business will end poverty"** – In recent years, aid workers have changed their perception of multinational companies. They once perceived multinationals as greedy and evil, and now they see them as potential saviors. Both views are misguided. A corporation is just an entity organized to do business. Few large companies have figured out how to make a profit by serving poor people who can't read their ads, and who lack televisions or computers. Large companies can address the needs of the very poor only by radically changing their strategies and their products.

> "The path out of poverty lies in releasing the energy of Third World entrepreneurs."

The true cure for poverty is stunningly simple: The poor need to find ways to earn more. Polak once asked a Nepalese farmer named Bahadur why he was poor. "I'm poor because I haven't found a way to earn more money," said the farmer. He grew enough rice and vegetables to stave off starvation, and he made about $35 a year selling rainy-season vegetables. He and his son earned $70 taking temporary jobs in the city. However, it all added up to only a subsistence existence. The poor lack clean water, health care, nutrition and education. But when someone like this farmer boosts his income from $1 to $5 a day, he gains access to better water and food, to doctors and medicine. He can even send his kids to school.

Designing for the Poor: Think Cheap

Many firms are working on many products for subsistence farmers. Since most small-plot growers haul water by hand, many new designs focus on water. They include motorized water pumps and low-pressure sprinkler systems. One revolutionary innovation could come in housing. Many of the rural poor live under thatched roofs, between walls made of sticks, mud or dung – structures that have no value as loan collateral or resale property. A $100 house made of solid but cheap materials would find a huge developing-world market. Heed these tips for cheap design of breakthrough products:

- **Impose a "radical weight-loss diet"** – Lighter means cheaper. Most sprinkler pipes are made for First World water pressure. Because he designed plastic tubes to accommodate 10 pounds per square inch of pressure instead of 30, Polak could use flimsier plastic, which made the pipes affordable for poor farmers.
- **Forget about lawsuits** – In the U.S., if you tell an engineer to design a bridge for a 10-ton load, he'll design it to hold 30 tons. After all, if he designs to a lower standard and the bridge collapses, he'll face a lawsuit. In the developing world, where lawsuits are less of a menace, affordability trumps liability.
- **Use LEGO sets as a model** – Poor farmers lack cash or financing, so the customer for a drip irrigation system might be able to afford only a system large enough for a 16th of an acre. When he gets the cash from those irrigated crops, he can add to his system. Design products for the poor to be "infinitely expandable."
- **Trade quality for affordability** – The cash-strapped farmer doesn't care that your product will last seven years if he can't afford it. He'd rather buy a cheaper product that might last only two years if it boosts his income enough to buy a better version later.

Educating the Poor: Plays, Songs and Film

For subsistence farmers, a lack of knowledge poses a significant barrier to earning more. Many farmers don't know the basics of agriculture, so they miss simple ways to boost their yields. Most small-plot farmers fertilize with manure, but typically they don't use enough. One easy solution is "manure tea." Put a burlap bag of animal manure in a barrel of water, steep for two days, and then put the nutrient-rich mixture on the plants. Human urine is another free fertilizer. A farmer's family can urinate into a container, cut the urine with water and apply it to plants. A family of four that's vigilant about recycling urine easily can fertilize a quarter-acre vegetable plot.

> "Affordability isn't everything. It's the only thing."

Subsistence farmers also often fail to realize how much an investment in a pump or an irrigation system would boost their finances. These consumers often are illiterate, and can't be reached through traditional advertising. To market treadle pumps in Bangladesh, Polak used innovative promotions. He hired four-member bands to visit markets and fairs, where they'd sing songs about treadle pumps. He hired actors to perform short plays espousing treadle pumps. He even produced a 90-minute movie using Bangladeshi actors and showed it in villages with the help of a portable generator.

About the Author

Paul Polak founded International Development Enterprises, which sells products to rural farmers in Bangladesh, Cambodia, Ethiopia and other poor countries. In 2007, IDE received a $13 million grant from the Bill & Melinda Gates Foundation. Polak won the Scientific American Top 50 award and an Ernst & Young Entrepreneur of the Year award.