An Excerpt From

The Business Solution to Poverty Designing Products and Services for Three Billion New Customers

by Paul Polak and Mal Warwick Published by Berrett-Koehler Publishers



THE BUSINESS SOLUTION TO POVERTY

Designing Products and Services for Three Billion New Customers

"One of the most hopeful propositions to come along in a long time . . . original, ambitious, and practical." BILL CLINTON PAUL POLAK MAL WARWICK

More Praise for The Business Solution to Poverty

"The Business Solution to Poverty presents a radical new idea that's firmly grounded in common sense. This book describes precisely the sort of investment opportunity that patient investors who seek social impact are looking for. Once companies like those Paul Polak and Mal Warwick envision are up and running and looking to the capital markets, I'm confident they will provide the opportunities for funding to help put an end to global poverty."

-Wayne Silby, Founding Chair, Calvert Funds

"The failure of foreign aid and other efforts by outsiders to end poverty in developing countries is no secret. But now we have a promising alternative approach to this age-old challenge. *The Business Solution to Poverty* shows the way, step by step, with countless examples that virtually leap off the page."

-Barbara Lee, cofounder and Cochair, Congressional Out-of-Poverty Caucus, and Chair, Democratic Whip Task Force on Poverty and Opportunity

"Paul Polak and Mal Warwick have written an insightful and accessible guide for co-investing in a way that enriches the livelihoods of the poor and the souls of investors. Why are we here, anyway? Whether you're an entrepreneur or investor, *The Business Solution to Poverty* has an abundance of examples of what it takes for enterprises to be successful and transformational in emerging markets."

-Bob Pattillo, founder, Gray Ghost Ventures

"Few people in rich countries like the United States can imagine what poverty in the developing world is really like. *The Business Solution to Poverty* will help readers everywhere understand both the enormous human toll that poverty takes and the true potential to end it."

-Van Jones, cofounder, Green for All and Rebuild the Dream

"Finally, a solutions-focused approach, as opposed to the typical problemsfocused approach, toward solving one of the most pressing global issues of our time—global poverty. Polak and Warwick fully understand that business, not aid, offers the greatest opportunity to serve the world's three billion people living in poverty and that a profit-based solution will move the needle far faster than tired models of traditional philanthropy. These emerging markets represent a vast opportunity for successful enterprises to flourish successfully, and the authors give us a practical guide to doing so."

—Kellie A. McElhaney, author of *Just Good Business* and Founding Faculty Director, Center for Responsible Business, Haas School of Business, University of California, Berkeley

"This is a very practical and compelling set of takeaway ideas to accelerate the use of business tools to end poverty. They are based on decades of operational success that have benefited some of the world's most impoverished people. Polak and Warwick have produced a gem that teems with easy-to-understand concepts and brilliant examples that show how business can make a historic contribution to improving life conditions in developed and underdeveloped societies."

-Ron Grzywinski, cofounder, ShoreBank

"The Business Solution to Poverty is based on decades of experience in eradicating poverty through profitable business. This astounding book will teach you how to practice ruthless affordability, zero-based design, last-mile delivery, and other essentials of poverty alleviation. Your view of poverty—and perhaps of business, too—will never be the same."

-Gifford Pinchot, President, Bainbridge Graduate Institute

"The Business Solution to Poverty turns Paul Polak's groundbreaking work to expand affordable irrigation for the dollar-a-day farmer into a compelling and practical vision to eradicate poverty. An indispensible resource for all with a big idea, an entrepreneurial spirit, and a drive to make poverty history."

-Sandra Postel, author, lecturer, and Director, Global Water Policy Project

"Though *The Business Solution to Poverty* presents a powerful case for a marketbased path to a world without poverty, it also lays out a practical and compelling vision of the role that philanthropy and NGOs can play."

-Neelam Makhijani, Chief Executive, Resource Alliance

"The Business Solution to Poverty helps us understand what poverty looks like in developing countries. Moreover, it challenges us to consider how to best reach potential customers at the bottom of the pyramid by calling for a revolution not just in design but also in corporate blueprints—ushering in a new breed of businesses that should help transform the marketplace in emerging markets."

---Randall T. Kempner, Executive Director, Aspen Network of Development Entrepreneurs

"Paul Polak is a hero of mine. His vision, like that of Muhammad Yunus, is to use business to serve the very poor at scale. As entrepreneurs who walk their talk, Polak and Warwick demand that we deliver value to the poor, not catchphrases to the media, and that we do so at a scale commensurate with the need. Polak's personal experience delivering needed basic services over the last mile is what makes this book powerful."

—Jay Coen Gilbert, cofounder, B Lab

"The Business Solution to Poverty makes a strong case that business, employing innovative technology, can effectively end extreme poverty in collaboration with government and local communities."

-Rajiv J. Shah, Administrator, United States Agency for International Development

The Business Solution to Poverty

By Paul Polak Out of Poverty

By Mal Warwick Values-Driven Business: How to Change the World, Make Money, and Have Fun

Fundraising When Money Is Tight: A Strategic and Practical Guide to Surviving Tough Times and Thriving in the Future

How to Write Successful Fundraising Appeals, Third Edition

THE BUSINESS SOLUTION TO POVERTY

Designing Products and Services for Three Billion New Customers

Paul Polak and Mal Warwick



Berrett–Koehler Publishers, Inc. San Francisco *a BK Currents book*

The Business Solution to Poverty

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235 Montgomery Street, Suite 650

San Francisco, California 94104-2916

Tel: (415) 288-0260, Fax: (415) 362-2512

BK www.bkconnection.com

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First Edition Hardcover print edition ISBN 978-1-60994-077-5 PDF e-book ISBN 978-1-60994-078-2 IDPF e-book ISBN 978-1-60994-079-9

2013-1

Cover design: pemastudio. Book design: VJB/Scribe. Copyediting: John Pierce.

Proofreading: Elissa Rabellino. Index: George Draffan. Photo page 186, middle: copyright

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234: Erin Ehsani. All other photos: International Development Enterprises.

From Paul Polak:

To the one-acre farmers who taught me most of the things I wrote in this book

From Mal Warwick: For Nancy Jo, who knows what poverty means This page intentionally left blank

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Preface

Why We're Writing This Book and Why You Should Read It

hances are, you picked up this book because one of the following descriptions applies to you:

- You're an entrepreneur or investor seeking practical ways to profit from new enterprises in emerging markets.
- You're an executive at a major transnational corporation who understands that your company's long-term sustainability depends on its ability to gain a major share of the billions of potential customers at the bottom of the pyramid.
- You're an eyewitness to severe poverty as a citizen of an emerging nation and hope to relieve that suffering through business.
- You're a development practitioner working for an overseas development agency, your government, an NGO, the United Nations, or some other multilateral organization.
- You're a designer of products and services who wants to learn about "design for the other 90 percent."
- You're a teacher or student in an undergraduate or graduate course of study in business, social enterprise, international affairs, economic development, area studies, design, or poverty.
- You're a philanthropist or impact investor who's seeking the most effective ways to make your money count in addressing global poverty.
- You're a concerned citizen who wants to know how something effective can be done to narrow the inequities between rich and poor.

• You simply want to understand better what life is like in countries poorer than your own—and how conditions there might be improved.

If one of these statements fits, you're in the right place.

We're writing this book to share a set of ideas that we believe — in fact, we know — can help end poverty for hundreds of millions of families around the world who are now subsisting on \$2 a day or less.

...

While this book has major policy implications, it isn't intended for the eyes and ears of decision makers at the World Bank, the United Nations, the White House, Zhongnanhai, or 10 Downing Street. Both of us inhabit the world of business. Although we don't overlook the impact of high-level policy choices — far from it!; we'll even address some of those choices — we believe that the greatest potential for reducing poverty in today's global environment lies in the power of business. Most of the pages that follow showcase our ideas about how business, both new ventures and existing companies, can substantially lessen the impact of world poverty . . . while making a lot of money in the process.

Here's our proposition in a nutshell:

- The estimated 2.7 billion people who live on \$2 a day or less constitute an enormous untapped market.¹ Six years ago, the International Finance Corporation and the World Resources Institute estimated the collective purchasing power of the four billion people they define as the "bottom of the pyramid" at \$5 trillion.² And as millions of these people move out of poverty, their purchasing power will double and triple.
- Businesses will thrive if they offer products and services that meet the needs of the bottom billions for quality, reliability, and, above all, price. Conversely, companies that don't quickly

learn to operate effectively at scale in this market will lose out to the companies that do.

• In fact, companies that want to extend their reach into emerging markets must first aim to serve \$2-a-day customers — tomorrow's middle class — and later move up the pyramid. Approaching the problem from the top down has almost never worked, as you'll understand better after you read this book.³

...

Several years ago, Berrett-Koehler Publishers released Paul Polak's *Out of Poverty*. Based on Paul's then quarter-century of experience working with \$1-a-day farmers in developing countries, *Out of Poverty* described how Paul and the staff of the market-driven nonprofit organization he founded in 1981, International Development Enterprises (IDE), had lifted 17 million rural people into the middle class by rigorously applying practices they developed in the field in India, Bangladesh, Nepal, Somalia, Zambia, Zimbabwe, and other underdeveloped nations. The products and services they introduced — including the treadle pump, low-cost drip irrigation, and new agricultural marketing practices — were revolutionary because they were market-driven and designed for and with \$1-a-day farmers, and, not incidentally, because they worked.

The Business Solution to Poverty represents the evolution of Paul Polak's thinking since he wrote Out of Poverty, refined and augmented by Mal Warwick's three decades of experience founding and running businesses, more than 20 years as an active member and 4 years as chair of Social Venture Network, and investing in a variety of companies. Together, the two of us have spent 150 years on planet Earth. We've accumulated a significant range of additional experience — from Mal's three years in the Peace Corps in rural Ecuador in the 1960s, plus later travel and teaching in Asia, Africa, Eastern Europe, and Latin America, to Paul's years as a pioneer in the field of community psychiatry in the 1960s and 1970s and a lifetime of success in business, beginning at the age of 10. We certainly don't pretend to be omniscient, but we've learned a few things.

There are two significant conceptual differences between this book and Out of Poverty. First, we are writing not just about the poorest of the poor, the one billion or so who live on \$1 or less a day who were the focus of Paul's first book, but also about another 1.7 billion people who struggle to make ends meet on up to \$2 a day. These 2.7 billion people qualify as an enormous potential market by any definition. Second, when Paul wrote Out of Poverty, he felt that it made little sense to undertake a project (such as the introduction of low-cost drip irrigation) unless it could be scaled to reach at least one million people. The Business Solution to Poverty envisions businesses with at least 100 million customers, thus addressing one of the central issues in economic development for over more than half a century: scale. We believe we have found the answer to the challenge of scale in the ability of businesses to marshal substantial capital and specialized talent and to manage operations of considerable scope. These are the built-in advantages of the private sector that we propose to take advantage of in a new breed of businesses: profitable ventures capable of harnessing both a revolution in design for the other 90 percent that's centered on the ruthless pursuit of affordability, and a revolution in decentralized village supply chains and aggregation strategies.

As you read the pages that follow, you'll make up your own mind about our thesis. We hope you'll let us know what you think. You can contact us at www.businesssolutiontopoverty.com or at www.bkconnection.com/businesssolutiontopoverty, where you'll find resources and other material to enhance your understanding of the issues we raise in this book.

To be as clear as possible, we're sharing our ideas in *The Business Solution to Poverty* not merely to contribute to public discourse about the challenges of development but to offer a roadmap to entrepreneurs and existing businesses interested in the bottom

billions as potential customers. We sincerely hope you won't hesitate to use our ideas as a launching pad for your own ventures that serve the poor. Don't worry about stealing our ideas: we'll be flattered.

Paul Polak Mal Warwick Golden, Colorado Berkeley, California This page intentionally left blank

EIGHT KEYS TO ENDING POVERTY

he following pages are chock-full of information about the state of business, government, and philanthropy today in light of our primary concern in this book: a desire to eradicate poverty. Lest you wonder why we've set out to tell you all this, please consider the following:

- If you're involved in the world of big business, you've surely encountered the reality of the "flat world" that Thomas Friedman has so eloquently described. The likelihood is that there's precious little room for growth in your traditional markets, and you're wondering where your new customers and new revenue will come from or you know they have to come from emerging markets, but you don't yet understand how to do business in those markets. Conventional wisdom says you can't make money from the nearly three billion new customers we describe in this book but we'll show you how you can.
- If you're a social entrepreneur, you may be frustrated with the difficulty you're probably having securing the funds you need to finance your venture. Impact investing has been around for a long time now, but disillusionment and cynicism are setting in among social entrepreneurs like you because money is so hard to come by, and among impact investors who are skeptical that social enterprise has wrought much change. The field needs to get unstuck and we believe we have the answer for you: a way to help end poverty and make enough money to keep investors happy.

- If you're professionally engaged in antipoverty work, whether at the United Nations, through a national government, or in an NGO, chances are you're having trouble raising money and not just this month or this year, but constantly. Truth to tell, you're probably also having difficulty proving that the great results you've obtained are really adding up to much on a global scale. Although you're aware of the growing evidence that market-based approaches often work, you may be reluctant to try one because you know that traditionally, capitalist approaches have exploited poor people and done irreparable harm to the environment. But what we advocate is different: a way to achieve results on a global scale and solve your fundraising challenge without victimizing poor people or despoiling the environment.
- If you're a teacher, whether in college or at a university or graduate school, and whether your subject is business, social enterprise, international affairs, economic development, area studies, design, or poverty, you may find that this book is ideal to use as a text in your course. Your students will learn about a topic of great current interest — and find out how they can make a big difference in addressing one of the world's leading challenges. This book is filled with practical examples, step-by-step explanations, and references to sources and related literature.
- If you're engaged in the emerging field of "design for the other 90 percent," the information you'll discover here will let you view your work in the broader context of day-to-day business concerns and the down-to-earth problems of working in an emerging nation and an unfamiliar culture. You'll find this book is bursting with practical, detailed recommendations about how to put your ideas into practice under real-world conditions.

Why Business Should Be Interested in Fighting Poverty

Because you're reading this book, you may feel, as we do, that poverty is humankind's greatest shame. But if you consider the matter for a moment, we're sure you would also agree that the scope and persistence of poverty doesn't just raise questions about the moral character of the human race. There are practical considerations, too.

Consider, for example, the horrendous waste of human talent. How many scientists, physicians, teachers, business innovators, gifted artists, and brilliant community leaders might emerge from the bottom billions if they were freed from the shackles of poverty? How much might all our lives be enriched if the 2.7 billion people who face the constraints of severe poverty today were given opportunities to fulfill their potential?

Consider, too, the prospect that the end of wide-scale poverty might lower the level of conflict in the world. Ethnic hatred, intercommunal violence, and religious extremism flourish in communities where few people are well educated. Moreover, the lack of economic opportunities and the institutionalized oppression prevalent in many political systems go hand in hand with violence, terrorism, revolution, and war.

Widespread poverty is also a root cause of a host of environmental problems that take their greatest toll on the poor themselves. Throughout the Global South, growing numbers of poor rural people overfarm already poor soils, cut down trees for fuel, use local lakes and streams as toilets and waste dumps, burn carbon-intensive fuels for cooking and heating, and compete for fast-shrinking supplies of water. Lack of education, high infant mortality, and the need for more hands to increase family income lead to overpopulation, which adds a multiplier effect to the existing pressure that humanity exerts on our dwindling resource base. Overpopulation is the biggest environmental factor of all, and it's getting bigger: practically all the projected increase in the world's population between now and 2050 will take place among people who live on \$2 a day or less in the world's poorest countries.

All this adds up to a powerful moral and practical case for ending poverty. But there is also a compelling business case, as is obvious to any thoughtful strategic planner at a multinational firm with a global footprint. Five factors come to the fore in any serious analysis:

Huge market opportunity. A virtually untapped market numbering 2.7 billion potential customers is simply too big to overlook. The emerging economies of the Global South, not even counting China and Russia, collectively generate \$12 trillion, or nearly one-fifth (18 percent) of the world's total economic output.¹ Remarkably, these trillions of dollars of purchasing power do not reside solely among the elites and the limited middle class of these developing nations: "In developing countries, more than 50 percent of the purchasing power resides in the [bottom of the pyramid] segment."² These figures reflect current reality, but as today's poor move into the middle class, their purchasing power will multiply.

Crowded home markets. Dig a little below the surface of many of Europe's and America's biggest multinational companies, and you're likely to find that a large and growing percentage of their profits comes not from their traditional homelands but from the emerging markets of the Global South. Increasingly, the world's leading businesses are coming to realize that establishing themselves firmly in these new markets is a matter of corporate life and death. Notwithstanding the environmental problems caused by relentless industrial growth, the inescapable fact is that the transnational companies that already dominate the world's economy feel they must find ways to extend their reach among the bottom billions. The world's 2.7 billion poor people are, for global business, "the New Frontier."³

Disruptive forces. Even a cursory reading of business history quickly leads to the realization that business is volatile and subject to frequent, sometimes disruptive change. When Charles Dow assembled the original Dow Jones Industrial Average in 1896, he selected 12 stocks to represent the strength of the US industrial sector.⁴ Of those 12 companies, 2 have gone bankrupt, 2 were broken up by antitrust action, 4 were acquired by other corporations, and 3

operate today under new names but are no longer large enough to be counted among the Dow Jones 30. Only GE remains on the list. Equally important, the 30 companies that make up today's list prominently feature corporations in industries entirely unknown to investors in the Gilded Age: jet airplanes, networking systems, microprocessors, wireless communications, and others. Disruptions in the world of business never stop coming. Remember Tower Records? Blockbuster? Kodak? All three were billion-dollar companies until just a few years ago, and all three are now history. To cite another recent and familiar example: One day General Motors is coasting along, the largest industrial corporation in the history of the world – and the next day Toyota is eating its lunch, selling millions of smaller, lighter, cheaper cars that respond to the American public's growing appetite for fuel efficiency. Now Toyota itself faces a challenge from Korean and Chinese automakers, which are beginning to invade its markets. In business, life is change. No wellmanaged corporation with global aspirations can afford to overlook new market opportunities.

Growing interest within big business. Some large corporations have already successfully demonstrated that an established company can move significantly down market and make a profit, while stealing a march on competitors. For example, Walmart now operates in 27 countries, including Mexico, Argentina, Brazil, and much of the rest of Latin America; most of southern and eastern Africa; and both South and East Asia. Hyundai, which sells vehicles in 193 countries, is India's second-largest auto exporter, and three of its models are among the top 15 best-selling cars there. Unilever generates more than half of its sales and a disproportionate percentage of its profits in emerging markets, where Procter & Gamble lags to its disadvantage. Cummins started making diesel engines in China 25 years ago, after Richard Nixon's visit, and now China, India, and Brazil lead the company's profitability and growth. Mahindra overtook US tractor makers Caterpillar and John Deere by introducing small, affordable tractors not just in India, where

it's based, but in the US market and elsewhere, seizing first place worldwide in tractor sales. All these companies have taken the first step, providing products and services for the middle class in emerging nations. Eventually, they may be forced to take the next step and serve \$2-a-day customers as well.

Access to scarce resources. Poor people happen to live right next to a surprisingly high proportion of the world's natural resources, and their hands-on participation is required to gain access to these resources. Let's look at gold in the Amazon basin as an example, where tens of thousands of poor miners are participating in a renewed gold rush and polluting the planet in the process.⁵ Here's an opportunity to create a new market that helps millions out of poverty while sharply lessening the environmental damage by introducing more sustainable methods. Let's also look at the fact that most of the fresh water on Earth is located where few people live – except poor people. Is this not an opportunity to create a transformative new market, "harvesting" water in ways that improve the health of millions, distribute the bounty more fairly, reduce the waste of water in agriculture, and profit local residents? Similarly, let's ask where most of the sunlight that reaches land falls on our planet. (Hint: it's not in the cities.) Consider also the potential use of the enormous quantities of waste biomass created when crops are harvested on scattered small farms where poor people live all over the globe: biomass can be converted into a form of low-carbon coal to lower by 20 percent the emission of greenhouse gases from power plants fueled with coal. These natural resources add up to a treasure house of potential business profit (and benefits to those who live nearby) that, in the long run, industry simply will not be able to ignore.

Most emerging countries are characterized by a tiny elite who share the cosmopolitan values of Europe and North America and a large mass of poor people whose lives are circumscribed by geography, custom, ethnicity, gender, and religion as well as socioeconomic status. The elite typically constitute a market that's too small to justify the expense of setting up shop in an underdeveloped and often unstable country. Some businesses have successfully launched products that serve the middle class in these countries, but this market already has strong competition. The true business opportunity lies among the bottom billions. Selling to these billions of people requires a revolutionary shift in business thinking beginning before products and services are even conceived. This is a difficult hurdle for any business to leap, but it can be done, as we'll demonstrate in this book.

Nearly a decade ago, a distinguished marketing professor at the University of Michigan piqued the interest of the business world about the poor as potential customers with *The Fortune at the Bottom of the Pyramid*. That professor, C.K. Prahalad, devised a brilliant title — a catchphrase that has ricocheted around cyberspace and entered the English language. Unfortunately, the case studies included to illustrate the book's concept, with their focus on customers earning \$5 to \$10 a day, failed to do so with one exception (Aravind Eye Care System, a nonprofit organization in India).⁶

Still, perhaps inspired by the magical promise of "the bottom of the pyramid," many of the world's largest and most successful companies tried to enter emerging markets — with generally mixed success at best. To their chagrin, they discovered that consumers in markets where poverty is prevalent don't behave the same way that consumers do in First World markets. The mistake so many businesses committed was to make "adjustments" to their existing products and services, eliminating features, using cheaper materials, lowering quality, rebranding them more cheaply — and thus cutting costs — only to discover that the resulting wares were unsalable because they failed to meet the needs, expectations, and aspirations of poor customers.⁷ The products and services of most of those companies were focused on customers earning \$5 to \$15 a day — solid members of the middle class in local terms and not the poor we're writing about.

There is a better way. By following the approach outlined in *The Business Solution to Poverty*, a company can earn substantial

profits by designing and selling products and services that satisfy the immediate needs of people who exist on the margins of survival—their needs as they themselves describe them to you. We will spell out practical ways to do this—100 million customers at a time. Later, as their fortunes improve and they move upward into the middle class, still brand-loyal, they will become the base of the company's more affluent customers, buying more evolved models of its original products and services as well as new products to fit their new lifestyles. Trickle-up economics works much better than trickle-down!

Do not mistake the businesses we're proposing as philanthropic ventures. In fact, these businesses are designed to realize generous profits while fulfilling their social mission. As Erik Simanis wrote in the *Harvard Business Review*, "Because the high costs of doing business among the very poor demand a high contribution per transaction, companies must embrace the reality that high margins and price points aren't just a top-of-the-pyramid phenomenon; they're also a necessity for ensuring sustainable businesses at the bottom of the pyramid."⁸ Simanis might have added that high margins are necessary when doing business among the very poor because of the high costs of delivering goods and services outside of cities, as well as the high risks involved, since so very few businesses have ventured into this market and there's so much to learn about it.

How We Propose to End Poverty

For the purpose of this book, we define poverty (and the bottom of the pyramid) as encompassing those families who live on the equivalent of \$2 a day or less per person. Thus, some 2.7 billion people, or about three of every eight on Earth, fall under our definition of poverty, including about one billion, or one in seven, who live on \$1 a day or less.

Despite the extraordinary rush to the world's cities, most of these 2.7 billion poor people still live in rural areas. As the United Nations reported not long ago, "The number of rural dwellers is high and still growing. In 2005, there were 3.3 billion rural dwellers, equal to the world's population in 1965" — including some 800 million in India alone, and an equal number in China.⁹ Although data is hard to come by, and what's available is sometimes questionable, it's safe to say that a majority of the world's poor today live in rural areas. They're the focus of our concern in this book.

Although we refer to the Global South in general throughout this book, poverty is by no means distributed equally throughout that vast span of territory. In fact, the lion's share of the poor is concentrated in just four areas. The Indian subcontinent (including India, Pakistan, Bangladesh, Nepal, Bhutan, and Sri Lanka) is home to what we estimate are some 900 million poor people. Southeast Asia (Myanmar, Vietnam, Laos, Cambodia, Thailand, Malaysia, Indonesia, Papua New Guinea, and the Philippines) holds 700 million more, with roughly 500 million in sub-Saharan Africa (the dozens of nations that lie south of the Arabic-speaking countries on the Mediterranean coast). China today may be home to some 300 million people living on \$2 a day or less. The number of poor in these four regions totals approximately 2.4 billion. The remaining 300 million are scattered globally.

The remedy we propose is to tap the mainstream capital markets to fund large-scale, global enterprises that address the basic needs of these 2.7 billion people: needs for clean water, renewable energy, affordable housing, accessible health care and education, and, above all, jobs. *The Business Solution to Poverty* will spell out exactly how big global businesses launched either by independent entrepreneurs or by existing multinational corporations can earn profits large enough to attract substantial amounts of capital by satisfying these needs — and lifting millions into the middle class in the process. Each of these businesses, we believe, must set a 10-year goal of building a customer base of at least 100 million, achieving revenues of \$10 billion or more per year, and realizing sufficient profitability to attract both indigenous and international commercial investors while minimizing its environmental impact to the greatest extent possible.

Eight Keys to Ending Poverty

The approach we advocate to end poverty doesn't follow a simple formula. You can't write it all down on a prescription pad. However, it is systematic. We call it *zero-based design*.

To understand what we mean by this term, consider the analogy we've based it on: zero-based budgeting. Typically, next year's budget is simply this year's with a few adjustments. Sometimes the process is straightforward: just increase or decrease last year's numbers by 2 percent or 10 percent, and — voilà! — you've got next year's budget. By contrast, in zero-based budgeting, you start from scratch. Zero. With every line item blank, you dig as deeply as you need to dig to learn what's really necessary and feasible.

Practically all designers set out on any assignment with a set of assumptions in mind—either a template they've successfully used in the past to solve a similar problem, or an existing product or service they plan to modify, or—at the very least—a conviction that they've run across similar challenges in the past and can rely on their own experience in addressing them. In zero-based design, none of these assumptions are acceptable.

You begin the zero-based design process from a position of assumed ignorance. Because you possess experience in, say, building homes, you might set out to establish a new business that provides healthy and comfortable housing for \$2-a-day people who now live in the most rudimentary shelters. However, instead of thinking of ways to adapt an existing home design to local conditions, you assume that nothing you have previously done will be suitable. You set out instead to determine what poor people themselves believe will best meet their needs. The process entails asking a lot of questions — questions at every stage of inquiry.

There are eight keys to applying zero-based design to the conceptualization and implementation of a business that will market essential products or services to people living on \$2 a day or less and be profitable enough to attract the capital necessary to reach global scale. By employing these principles in an integrated, bottom-up design process, you can fashion an enterprise that will truly help millions of severely poor people move out of poverty:

Listening. Don't look at poor people as alms-seekers or bystanders to their own lives. They're your customers. Always set out by purposefully listening to understand thoroughly the specific context of their lives — their needs, their wants, their fears, their aspirations.

Transforming the market. Think like Steve Jobs or Akio Morita ("I don't serve markets. I create them!").¹⁰ Your goal is to put a dent in the universe. A transformative new market will mimic the chain reaction in an atomic explosion, releasing energy to create yet bigger explosions. With success, your business will change economic behavior, create huge numbers of new jobs, and transform the character of villages around the globe.

Scale. Design for scale from the very beginning as a central focus of the enterprise, with a view toward reaching not just thousands or even millions of poor people but hundreds of millions. Scale isn't mysterious; it's fundamentally a mechanical process. You begin with a pilot project in, say, 50 villages. With success, you roll out to 50 villages per month, then to 250 per month, and later to 500 or 1,000, building on what you learn as you go.¹¹ You always keep in mind that you've set out to design a global enterprise — a profitable and sustainable working system, not simply a product or service.

Ruthless affordability. Design and implement ruthlessly affordable technologies and supremely efficient business processes, offering prices not just 30 to 50 percent less than First World prices but often an order of magnitude less, or 90 percent.

Private capital. Design for a generous profit margin so that you can energize private-sector market forces, which will play a central role in expanding any venture — drawing from a pool of trillions of dollars in private capital rather than the millions typically available for philanthropic or government-sponsored programs.

Last-mile distribution. Design for radical decentralization that incorporates last-mile (even "last 500 feet") distribution, employing local people at local wages in a marketing, sales, and distribution network that can reach even the most isolated rural people.

Aspirational branding. This is even more critical for \$2-a-day markets than for those serving the top 10 percent. Without aspirational branding that generates in buyers' minds an appreciation for its most widely appreciated benefits and attributes, Coca-Cola is just flavored, fizzy sugar water, and a Mercedes is only a high-priced car. Branding convinces us that paying a premium for these products will make our lives more rewarding.

Jugaad *innovation*. The Hindi term *jugaad* connotes improvisation, working with what you have, and paying unflinching attention to continuous testing and development. A cynic might call it simply ingenuity.

These eight ideas form the basis of the zero-based design approach we'll present in the pages that follow.

A Few Words about Jargon

Every field of endeavor is cluttered with specialized terms and definitions that frequently make little sense to an outsider, and the worlds of business and economic development are most certainly not strangers to this annoying practice. But fear not: we'll do our best to avoid or explain any words or phrases not in general use. For starters:

Global South. This is a term of art that transcends geography. It refers to the generally less-developed, low-income countries typically classified as "developing nations," "underdeveloped countries," and "emerging nations" — despite the fact that most of India, for example, lies north of the Equator, and Australia and New Zealand, which are by no means underdeveloped, lie far to the south of the line. We use all these terms interchangeably, even though some sticklers for precision in the economic development field distinguish between "developing" and "emerging" nations. (The latter are presumably those that are further along in the development cycle and are *emerging* as forces in the world economy. But who's to say that one country deserves to be called emerging and another doesn't?)

The West. Even though this term was robbed of meaning when Japan prevailed in the Russo-Japanese War more than a century ago, it's still commonly used by journalists, scholars, and most of the rest of us. We object. The countries that are commonly grouped under this heading are, for the most part, the planet's wealthiest and most developed nations. We intend to refer to them in that fashion or as the Global North or the First World. Some readers may object, but we can take the abuse.

Social enterprise. We're aware that some practitioners in this field still quarrel over the definition of this term.¹² However, from our perspective, a "social enterprise" is an organization whose primary purpose ("mission") is to address a social, economic, or environmental problem experienced by a large number of people. Any such enterprise may be organized as either a for-profit or nonprofit entity. So-called hybrid businesses - L3Cs (low-profit limited liability companies) and B Corporations, or Benefit Corporations in the United States and Community Interest Companies in the United Kingdom – are, by this definition, social enterprises. To be clear, the companies we advocate forming in The Business Solution to Poverty are social enterprises in the sense that they're designed to meet social, economic, or environmental needs. We advocate embedding the social goals of a business clearly into its mission, and then focusing single-mindedly on making the business profitable, because otherwise it won't be able to attract the large-scale infusion of capital required to achieve global scale. For example, if an enterprise adopts the mission of selling crop insurance to large numbers of poor farmers at an attractive price, embeds that mission into its DNA, and never wavers from it, transformative social impact is inevitable. The real challenge is earning attractive profits while doing it.

In any enterprise, whatever its goals, there's only so much money to go around. Businesses constantly confront trade-offs between retaining revenue for profits and using it for any one of innumerable other purposes—raising the quality of its products and services, hiring more employees, or paying existing staff higher wages, for example. We find that impact investors consistently confuse this question. *Social impact and profitability are not mutually exclusive*. If a business is truly dedicated to a social mission such as providing electricity at an acceptable price to millions of people who live on \$2 a day or less and would otherwise continue to live in the dark, it's not just appropriate that the company earn good profits—it's imperative. Otherwise, the business will be unable to grow and deliver electricity to millions more.

Stakeholder-centered management. Among the trade-offs that business will nonetheless face are those between profitability, on the one hand, and product quality, environmental impact, and wage levels, on the other. We don't believe that any business can thrive over the long term unless, in addition to pursuing a meaningful social mission, it sells high-quality goods and services, pays livable wages to its employees, and avoids any harmful environmental impact. These are central features of what we term *stakeholder-centered* management, an approach that requires us to take into account the needs of all stakeholders when addressing those trade-offsthe employees, the local community or communities, the environment, and the suppliers, as well as the customers and the owners. Is it also important to spend large sums of money measuring and reporting on the company's performance in those terms? We don't think so-at least not in the early years. Making money is hard enough. Perhaps a multinational company that's already highly profitable can afford to invest in the newly emerging practice of integrated reporting, which covers all aspects of a business's performance. It may even be important that such a company do so. But for a fledgling social enterprise delivering essential goods and services to the world's poor, such expenditures would drain profits essential to its growth.

In addition to these perhaps idiosyncratic uses of words, there is one other atypical convention you'll find in this book. For simplicity's sake, we'll consistently use the "\$" symbol to denote US dollars. This is ethnocentric on our part, but we never said we were perfect. We'll also generally use units of measurement in the Imperial system (miles, pounds, gallons, and so forth), but we'll place the metric equivalents within parentheses as often as seems necessary.

How This Book Is Organized

We hope the text that follows will seem straightforward and easy to read. We've included no sidebars or other distractions to draw your attention away from the arc of the story we're telling.

Part one, "Only Business Can End Poverty," introduces you to your new customers and to poverty as they experience it, reviews why poverty persists, explains why we're convinced that business is the solution, and details the essential roles that government and philanthropy can play.

In part two, "Zero-Based Design and the Bottom Billions," we demonstrate, in practical terms and with abundant examples, what we mean by zero-based design and how you can put it into practice, step by step.

Part three, "Opportunities Abound," concludes this book with a description of the four new companies Paul is establishing and a list of the additional opportunities in water, power, health care, education, insurance, housing, and other fields that are just waiting to be seized by venturesome and dedicated entrepreneurs or existing multinational corporations.

The Business Solution to Poverty ends with a list of the takeaway ideas highlighted in the book and with an appendix in which we relate the qualms and complaints that friends registered as we wrote this book—and our responses to their reservations.

Naturally, in the course of researching this book, we've come across a rich trove of resources that illuminate the issues broached here. In past years, we would have appended a resource list at the end. However, in today's fast-changing world, we opted instead to post that material online, where it can be readily updated. The address for the website we built for this purpose is at www .businesssolutiontopoverty.com. We invite you to visit the site and register any comments or ideas you may have about this book or the issues or examples we've written about.

Meanwhile, enjoy what follows! We wrote it for you.

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PART ONE Only Business Can End Poverty

In these first four chapters, we'll introduce you to your new customers and give you a bird's-eye view of poverty as they experience it throughout the Global South. If your acquaintance with the poor is limited to what you've observed in one of the wealthy societies of Europe, North America, East Asia, or Australia, you'll get a sense of how very different poverty is in most developing nations. You'll learn why we believe poverty persists there and how the traditional approaches pursued by governments, the UN, nonprofit organizations, and philanthropists have failed to eradicate poverty during a six-decade span when the global economy has expanded 17-fold. We'll detail the essential roles we believe government and philanthropy can nonetheless play, and we'll explain why we're convinced that business must be the driving force in ending poverty on a global scale.

In many parts of the world, farmers sell their produce much as their ancestors did—in open-air markets like this one in Ethiopia. Prices may vary from one town to another based on strictly local circumstances, such as the scarcity of water, the dominance of a large local landowner, or variations in cultural preference or taste.



Children in poor countries are typically put to work at an early age. Most leave school before grade five. Here, children in Nepal gather firewood for sale. This girl's family may be dependent on the additional cash her work brings in, even if her parents are healthy enough to work the long hours demanded by subsistence farming.



To residents of rich countries, the amounts of cash changing hands in market transactions may seem so small as to be inconsequential. However, the pennies this Ethiopian farmer earns from selling her wares on the street in town each week can make the difference between subsistence and starvation.



A restaurant can be a few pots and pans and a propane stove, as it is here in Bhopal, India. Individual entrepreneurs — more often than not migrants from villages where job opportunities are few — frequently start such businesses to generate urgently needed income to support their families. They often hire others at minimal wages to share the workload.

Chapter 1

"THE POOR ARE VERY DIFFERENT FROM YOU AND ME"

In this chapter you'll meet your customers where they live, and you may gain new perspective on poverty as it's experienced in developing countries.

nless you yourself grew up in poverty in the Global South, you'll find an environment there that may be radically different from anything you've experienced before. You'll also learn that the conventional wisdom about poverty being an unrelieved misery is a myth. Here's a taste of what you'll encounter as you set out to establish a business to serve the poor — because, if you follow our lead, one of the first steps you take will be to venture out into the field to talk to people like those portrayed in this chapter, the people who will become your customers. These are people who constitute a marketplace to be served, with real needs to be met.

Sunil Mahapatra

As we enter the outskirts of a village in eastern India, we come across a farmer who appears to be in his early 30s. We'll call him Sunil Mahapatra.¹ Sunil lives with his wife and three children in a small mud-walled house on the east end of their village. Until recently, he and his family earned their living from one and a quarter acres of land divided into five separate fields scattered around the outskirts of the village. This includes a half-acre of monsoon-fed lowland rice. The family plants a local variety of rice, hand-broadcasting a few kilos of urea to the rice twice during the growing season. With the help of rain-fed irrigation, Sunil and his family harvested 1,300 to 1,500 pounds (600 to 700 kilos) of rice each year. Their two daughters, aged 6 and 8, and a 12-year-old son helped them keep two young goats for meat and 10 chickens. They also kept a small vegetable garden. Their dream was to someday buy a young buffalo to raise to maturity.

However, Sunil and his wife have had to scrimp and save, setting aside most of their income for the better part of a year, to provide the dowry for each of their daughters. (They hope to get at least some of this back when their son marries, especially if they can keep him in school long enough to command a good dowry.) They planned to take their daughters out of school after grade six because they couldn't afford to pay for the school uniforms and textbooks required for later grades. Besides, the girls were needed to help with chores at home and tend to the goats and chickens. If they could improve their income from farming, they dreamed of being able to support their son all the way through high school, and then he might be able to earn enough money to help the whole family move out of poverty.

During the dry season, when he grew little in the way of crops, Sunil usually went to the city to find work. He hired on as a rickshaw puller. After he paid the rickshaw fleet owner and modest lodging and food expenses, he got to keep 50 rupees a day. With the 4,500 rupees he usually earned from rickshaw pulling, an additional 2,500 rupees from selling rice, 3,500 more from growing sunflowers, and 2,000 from his wife's basket-making, Sunil and his family survived on 12,500 rupees in cash income each year, which amounts to about \$0.70 a day. But they grew enough rice to keep the family fed for the whole year as well as monsoon vegetables to augment their diet during the six months of rainy weather.

All of this changed dramatically two years ago, when Sunil heard about a low-cost manual irrigation pump that he could use to grow a half-acre of vegetables during the dry season, when vegetable prices were two to three times as high as during rainy weather. He and his wife were able to save 250 rupees to make a down payment on a treadle pump being promoted by an organization called International Development Enterprises (IDE). They took a big gamble, borrowing 1,000 rupees from a local moneylender at an interest rate of 100 percent for four months. But Sunil was a very good farmer. By enlisting everybody in the family to pump, he could produce about 3,000 gallons (12,000 liters) of water in six hours, enough to irrigate a half-acre of vegetables in the dry season.

In the first year, Sunil and his family grew tomatoes, a highyielding variety of eggplant, chili peppers, cucumbers, and cauliflower, which they were able to sell in the village market for an astounding 7,400 rupees (about \$148). This left them with about 5,500 rupees (\$110) in net profit, not counting their labor. With this, they were able to pay off the 2,000 rupees they owed the moneylender and have 3,000 rupees (about \$60) more to spend.

In the second year, Sunil learned to get a better price by bringing the family's vegetables to the market before the seasonal glut, and he cleared 6,000 rupees. The result was a total of 7,000 rupees in net additional income in the third year. With an increase of more than 50 percent in net annual income, the family has been able to put a corrugated tin roof on its house, improve its rice yield by investing in higher-yielding seeds and fertilizer, and realize its dream of raising a water buffalo.

Best of all, they now plan to keep all three of their children in school as long as they want to go. If they are good at their schoolwork, one of them might even have a chance to go to college!

Sunil's Village

OK, let's not beat the obvious to death. We'll stipulate that (a) you've got a lot more money than Sunil Mahapatra (after all, he couldn't afford to buy this book), and (b) you probably have running water, indoor plumbing, and electricity in your home, and he doesn't. But real people's lives can't be summed up so simply. So,

let's drill down a little more deeply, moving in for a close-up look at the East Indian village where Sunil and his family live.

The village is located in the state of Orissa, one of dozens where an early-stage company named Spring Health (described later) has opened for business, offering safe drinking water at a very low price to villagers throughout the region. We'll call the place Bahrimpur. It lies about 8 kilometers from the sea and halfway between Bhubeneshwar, the state capital, and the seaside city of Puri, 70 kilometers to the south.

Bahrimpur is home to 260 families. It boasts three small shops (called *kirana* shops) selling consumer goods such as spices, cookies, candies, and an abundance of small sachets, hanging in vertical rows, filled with products ranging from chili powder to *ayurvedic* (traditional Hindu) medicines to laundry detergent. The village also is home to a small tea shop and a Hindu temple.

Most of the families in Bahrimpur are Hindu, but it has a small Muslim community as well. The village also houses 30 untouchable families living across a dry streambed in a poorer section.

Bahrimpur and four nearby villages are governed by a *pan-chayat*,² an elected body of five wise and respected elders that oversees subcommittees responsible for local roads, preschool programs, and poverty alleviation through the federal government jobs program. In Bahrimpur itself, the people of greatest influence include the village's representative to the *panchayat*, the larger landowners, a school principal, and village entrepreneurs, who often run *kirana* shops as well as other businesses such as coconut trading and firewood.

Life in Bahrimpur takes place when the sun is up. At night, in the absence of a brilliant moon, the village is "a world lit only by fire," to borrow the title of William Manchester's compelling description of medieval Europe.

Seven hand pumps have been installed in the village by the government, but five of them are no longer working because when they broke, nobody in the village owned them, so nobody fixed them. One of the two pumps still working is contaminated. This material has been excerpted from

The Business Solution to Poverty Designing Products and Services for Three Billion New Customers

by Paul Polak and Mal Warwick Published by Berrett-Koehler Publishers Copyright © 2013, All Rights Reserved. For more information, or to purchase the book, please visit our website www.bkconnection.com