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Acumen Fund: Measurement in Venture Philanthropy (A)

Brian Trelstad, the chief investment officer at Acumen Fund, walked down the hall of the organization's Manhattan headquarters, his mind abuzz with the conversation that had transpired that morning. The fund's investment committee had raised a number of concerns about the organization's portfolio in Kenya. As a global venture capital firm, Acumen invested in enterprises with a potential for growth and return on investment. But as a nonprofit organization with a philanthropic purpose, it backed entrepreneurial solutions to global poverty.

Much of the committee's deliberations in the spring of 2008 had centered on two potential investments (see **Exhibit 1** for a list of members of the investment committee and the board). The first was Ecotact, a for-profit venture that aimed to provide clean and accessible toilet and shower facilities in and around Nairobi. The company's founder had piloted such facilities while working with a nonprofit organization, and was now aiming to take that experience to scale through a market-based model. Acumen's investment committee was concerned about Ecotact's financial viability. The second investment being considered was a group of private health clinics located in Nairobi. The company, Meridian Medical Centre, had established a handful of "minute clinics" in the city in order to provide easy access to quality health care. The clinics were profitable, particularly in middle-class locales. But could they serve enough people in base of the pyramid (BoP) markets?

Trelstad (Stanford MBA, 1999) had joined Acumen Fund in 2004, and became its chief investment officer in 2006. He had taken the job because he relished the challenge of working in social investing. It was a job where the bottom line was rarely clear, and where sound decisions had as much to do with values as with business acumen. He looked about the office. It had been a while since he had consciously noticed just how different this place was—the sky blue foyer, the undulating orange ceiling above him and, more powerfully, the photographs of low-income men, women, and children from across Africa and Asia – all Acumen portfolio company customers – gazing at him from the walls, reminding him why he was there.

Patient Capital: Acumen's Mission and Model

Founded in 2001 by Jacqueline Novogratz (Stanford MBA, 1991), Acumen Fund aimed to demonstrate that "small amounts of philanthropic capital, combined with large doses of business

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Professors Alnoor Ebrahim and V. Kasturi Rangan prepared this case. Special thanks to Catherine Ross, of the HBS Global Research Group, for preparing the exhibits and for editorial assistance. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management. Some data and information about organizations referred to in this case have been disguised.

acumen, can build thriving enterprises that serve vast numbers of the poor."[1] Novogratz had left a promising career in global banking with Chase Manhattan Bank in the mid-1980s in order to take up an assignment with the United Nations Children's Fund (UNICEF) to start up microfinance institutions and community-based businesses run primarily by women in eastern Africa. After several years in Africa, much of it in Rwanda, she returned to the United States to get her MBA with a very distinct purpose in mind:

> My professors and fellow students were comfortable speaking about power and money. Love and dignity, on the other hand, were words people were often embarrassed to say out loud, or so it felt. There had to be a way to combine the power, rigor, and discipline of the marketplace with the compassion I'd seen in so many of the programs aimed at the very poor. Capitalism's future, it seemed to me then—and much more so now—rests on how much creativity and room for inclusion it can tolerate.[2]

Through her experience in Africa, Novogratz had grown increasingly concerned that the benefits of globalization were largely failing to reach those at the bottom of the economic pyramid. She was not sure that traditional forms of charity, often based on short-term grantmaking, could offer long-term solutions to the livelihood needs of poor people. At the same time, she did not view markets as the sole solution, having seen first hand that traditional financiers were often unwilling to invest in the poor due to perceptions of high risk and low returns. Novogratz thus set out to pioneer a new approach to philanthropy as "a means of leveraging real change by working across the private, public, and citizen sectors, and promoting market-oriented solutions to solve social problems."[3]

Acumen's basic model was to raise charitable funds from individuals, foundations and corporations, which it would in turn invest as equity or debt in enterprises serving BoP markets. These enterprises could be for-profit businesses or non-profit organizations (with an earned-income revenue model) focused on delivering services to the poor in one of five portfolio areas: water, health care, housing, energy, and agriculture. Taking a page from the experience of venture capitalists, Acumen's investments would not simply be in the form of financial capital, but would also build a portfolio company's human and knowledge capital through assistance in a range of areas including business planning, strategy, and performance management.

Novogratz felt that such "capacity building," as it was known in the international development world, occurred much too rarely and yet was essential to creating viable enterprises which, after a few years, would no longer need Acumen's support. A typical investment would involve a commitment of five to seven years, as compared to the more traditional investments of grantmakers that ran one to three years, with financial commitments ranging from $300,000 to $2 million in equity or debt. In addition, the organization launched a Fellows Program in 2006 that placed "high-potential young professionals" with investees in order to provide intensive on-site capacity building assistance, particularly with respect to business planning. Novogratz referred to this overall approach as "meeting urgent needs with patient capital." Or, as Trelstad liked to put it, "patient capital for impatient people."

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[1] The organization was started with seed capital from the Rockefeller Foundation, Cisco Systems Foundation and three individual philanthropists.

[2] Jacqueline Novogratz, *The Blue Sweater: Bridging the Gap between Rich and Poor in an Interconnected World*, (Rodale: New York, .2009), p. 121.

[3] Jacqueline Novogratz, "Meeting Urgent Needs with Patient Capital," *Innovations*, (Winter and Spring 2007), 19-30, quote p. 19.

At the same time, Acumen Fund recognized that its investments in private enterprises would likely yield below-market financial returns. While these returns were not to be given back to Acumen's investors, they were important for recycling back into the organization's pool of resources for future investments, while also enabling the investments to stand on their own. The financial returns were viewed as part of a broader set of primary investment criteria explicitly articulated by the organization:[4]

- *Potential for Significant Social Impact.* Companies need to make a product or deliver a service that addresses a critical need at the BoP in Acumen Fund's areas of strategic and geographic focus. Delivery of the products or services should generate social outputs that compare favorably with products or services either currently available on the market or through charitable distribution channels.

- *Potential for Financial Sustainability.* A clear business model that shows potential for financial sustainability within a five to seven year period, including the ability to cover operating expenses with operating revenues. This period corresponds to the tenor of most commercial loans, and positions entrepreneurs to access commercial finance in the future.

- *Potential to Achieve Scale.* An objective of reaching approximately one million end users within a five- to seven-year period with the benefits of the product or service.[5]

By May 2008, Acumen Fund's portfolio included 32 active investments totaling nearly $22 million, which it claimed had impacted over 36 million lives in BoP markets. About two-thirds of these investments were in the form of equity and one-third in debt, along with a small number of grants (see **Exhibit 2** for a list of investments under management in early 2008). Most of this capital was raibsed initially from 200 individual and institutional partners, which the fund sought to expand through a $100 million capital campaign launched in May 2008, in order to invest in 60-80 enterprises that could reach 50 million people (see **Exhibit 3** for Acumen's sources of funding, and **Exhibit 4** for its financials in 2007).[6]

Building a Portfolio

During its first few years as a startup, Acumen Fund faced a number of operational challenges: How would it identify enterprises that could satisfy its investment criteria? What should the due diligence process look like? How could investments be monitored and their performance measured? How and when should Acumen exit from an investment?

The organization's first four investments, made in 2001 and 2002, were in the medical technologies field, all of which were in the form of grants ranging from $300,000 to $430,000. The first grant supported the development of a breakthrough $50 hearing aid in India, as compared to aids that typically retailed for $1,500 in the United States. The second investment helped pioneer the use of personal data assistants for global tracking of diseases, while the third sought to create low cost

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[4] See http:/ / www.acumenfund.org/ investments/ investment-discipline.html (accessed April 14, 2009).

[5] Enterprises that did not aim to reach 1 million end users were still considered if they met other related criteria, such as the potential to grow by an order of magnitude within five years, potential to materially impact a social problem, and presence of a strong management team.

[6] By April 2009, Acumen had raised $85 million of this capital, and expected successfully to close the campaign by December 2010.

technologies for infectious disease testing in the developing world. The fourth, to Aravind Eye Hospital in India, focused on technological innovations in telemedicine that would enable a scaling up of eye surgeries.[7] While these experiences were successful in supporting the development of critical technologies for BoP markets, Acumen Fund learned that the development process for medical technologies was both expensive and risky, and that its own strengths could be better leveraged in supporting business planning and execution rather than in technological research and development.

Acumen gradually exited from these early investments by 2005, while simultaneously building up a portfolio made up mostly of loans and equity, rather than grants. Focusing primarily on existing businesses, it sought investees that needed business planning support in order to execute their models at scale, rather than startups with untested models. Acumen's first major success came with an investment in A to Z Textile Mills, a Tanzanian company that manufactured long-lasting insecticide-treated anti-malaria bed nets. Acumen provided a loan of $325,000 at 6% interest over five years to the company to support technology transfer from Japan for making improved nets and scaling production, a process that involved collaboration with Sumitomo Chemical, UNICEF, and Exxon Mobil. By 2008, A to Z had become the third largest employer in Tanzania, employing over 7,000 people and producing 19 million nets per year.[8]

These initial insights were further confirmed by an internal review of its first eight investments and exits, which found that "above and beyond breakthroughs in product design, effective business models are crucial for reaching BoP markets" and that "well-crafted debt and equity, as opposed to our early-stage grants, forces the financial discipline necessary for social enterprises to achieve sustainability."[9] The organization eventually converged on five key areas in which it wanted to have impact: health, housing, water, energy, and agriculture. The health portfolio grew to be the largest, with 60% of its investments. By 2006, Acumen had also opened field offices in three regions where it sought to focus its work: Nairobi, Kenya; Karachi, Pakistan; and, Hyderabad, India.

Assessing Two Potential Investments: Ecotact and Meridian Medical Centre

A critical prerequisite for any investment was a social entrepreneur with a compelling business model that aligned with Acumen Fund's mission. The organization's due diligence process aimed to test whether the investments satisfied its primary investment criteria—potential for significant social impact, potential for scale, potential for financial sustainability—by focusing on three sets of fundamental questions:

- Does the investment matter? How will the product or service help the poor, and what evidence exists that their lives will be measurably better for having used it?

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[7] For teaching cases on Aravind, see V. Kasturi Rangan, "Aravind Eye Hospital, Madurai, India: In Service for Sight," HBS No. 9-593-098 (Boston: Harvard Business Publishing, 2009), and V. Kasturi Rangan, "Aurolab: Bringing First-World Technology to the Third-World Blind," HBS No. 9-507-061, (Boston: Harvard Business Publishing, 2009).

[8] For a teaching case on A to Z, see Kileken ole-MoiYoi and William Rodriguez, "Building Local Capacity for Health Commodity Manufacturing: A to Z Textile Mills, Ltd." Global Health Delivery Project, (Boston: Harvard Medical School Department of Social Medicine and Harvard Business School Institute for Strategy and Competitiveness, 2008).

[9] Katie Hill, "Lessons Learned: Acumen Fund Exited Investments," Acumen Fund, 2007, available at: www.acumenfund.org/ knowledge-center.html?document=42, accessed April 2009. The organization did not eliminate grantmaking entirely, but was more cautious about the conditions under which grants could support an organization without creating future dependencies.

- How many people in the base of the pyramid will be served? What outputs should be counted?
- How does this investment compare to existing charitable alternatives (particularly in terms of cost effectiveness)?

In early 2007, Acumen's Nairobi office began exploring two potential investments for its health and water portfolios. In one case, Acumen was approached by a motivated architect for a loan for his new enterprise, Ecotact Limited, that aimed to create public pay-per-use toilet and shower facilities for low-income populations in urban areas of Kenya. The other request came from an entrepreneurial doctor who had already built a small number of one-stop outpatient health care clinics in Nairobi, under the brand name Meridian Medical Centre, and was seeking equity investors in order to scale his enterprise. At first glance, both enterprises appeared to satisfy Acumen's prerequisite: they were run by highly motivated entrepreneurs whose businesses had the potential to make a significant difference in the lives of the poor. Acumen's Nairobi team thus commenced its formal diligence.

Ecotact[10]

The founder of Ecotact was David Kuria, an architect and sanitation specialist, who had previously designed and built sanitation and ablution facilities with a nongovernmental organization called Practical Action. He had an architecture degree from Jomo Kenyatta University for Agriculture and Technology, and a master's degree in environmental planning and management from the University of Nairobi. Kuria had worked for Practical Action for seven years, where he had been responsible for managing local government service delivery. He was also plugged in nationally and globally, as co-chair of a sanitation and waste technologies working group between Kenya's Ministry of Health and UNICEF, as editor of a United Nations Development Programme regional newsletter on trends in waste management, and as a representative for southern and east Africa on a global network on sustainable sanitation and waste management. While Kuria had little experience in building a business, he came across to the Acumen team as driven and well networked.

While at Practical Action, Kuria had built three sanitation facilities in Nairobi's Kibera slum and two in the central business district of Nakuru, an urban center located about a three hour drive north of Nairobi. These pay-per-use facilities in Kibera had seen heavy use, with about 300-500 customers per day, generating revenues exceeding operating costs. Practical Action had eventually turned over the operations and maintenance of the facilities to a community-based organization which was able to use the revenues to fund other parts of its work. The facilities in Nakuru's central business district received fewer visitors, about 200-300 per day, but generated additional revenue by charging slightly higher fees, and by renting space at the facilities to shoeshine units and a Coca-Cola vendor (see **Exhibit 5** for use and income data from one of the Nakuru facilities run by Practical Action).

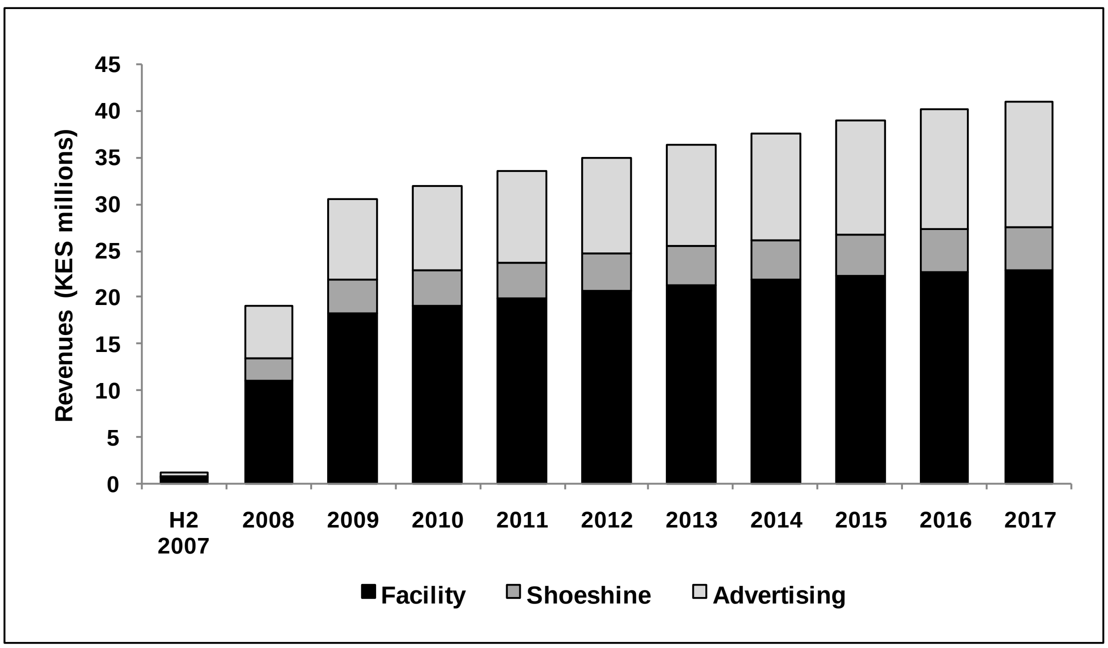
Kuria created Ecotact in order to scale this model in low-income urban areas of Kenya. He was seeking a loan from Acumen Fund to build 30 facilities in 10 municipalities. Each facility would have a number of core features: four toilet stalls, four shower/ toilet combination units (evenly split among male and female units), plus four male urinals in the male units (see **Exhibit 6** for photographs of a unit). Ecotact planned to operate all of these initial facilities itself, leaving open the option of adopting a franchise model for scaling to 200 facilities in five years.

The revenue model relied on customer payments of five Kenyan shillings (KES), or about $0.07, for toilet use, and KES 20 (about $0.29) for a shower, plus revenues generated from advertising space

[10] Acumen Fund Investment Memorandum, Ecotact Limited, 20 June 2007.

in the facility and rental space to third-party vendors for shoe-shining, sale of newspapers and beverages, or other such goods and services. In order to maintain a high standard of cleanliness and sanitation, each unit would be manually cleaned between uses. In addition, the business model depended on creating public-private partnerships (PPP) with municipalities, operationalized through ten-year contracts, allowing Ecotact to build and exclusively operate the facilities on public land, while the municipalities would retain ownership of both the land and the facilities. Acumen worked with Ecotact to gather details of its revenue model and to craft a business plan based on the experiences in Kibera and Nakuru (see **Figure A** for revenue projections and **Exhibit 7** for the projected income statement over ten years for 30 facilities). These projections were supplemented by sensitivity analyses for the utilization of sanitation facilities, advertising, and shoeshine rentals.

Figure A Ecotact Revenue Projections



Source: Company documents.

As a result of its discussion with Ecotact, Acumen Fund was considering being the sole financier for the construction of the first 30 facilities. This would take the form of an uncollateralized loan of KES 47.25 million ($757,212) at an interest rate of 7% to be repaid over five years. It was unlikely that Ecotact would be able to raise debt from local capital markets until it could demonstrate performance and audited accounts over several years, and even then would probably have to pay interest rates of 20-25%. Acumen thus saw an opportunity to function as a bridge between traditional grant-based charity and commercial capital.

Wendy Mukuru, a portfolio associate who had joined Acumen Fund in East Africa in 2007 after nearly two decades in the financial services industry in Kenya, explained why Ecotact was appealing:

> We liked the innovation. Ecotact wanted to provide a critical service in sanitation. It was something the public sector should have been providing but hadn't since the 1970s! Existing state facilities across the country had continued to deteriorate. Kuria had watched women go to the market to work all day, and asked "What do they do when they need a toilet?" Like Acumen, he wanted to provide access to health and water with dignity. That last piece of it—dignity—is important.

In addition, there was plenty of supportive research literature on urban sanitation attesting to the need for hygienic and accessible facilities in urban areas and its impact on human and environmental health. As an innovation, Ecotact offered a new model for rapidly scaling urban sanitation, while also forging public-private partnerships in the sanitation space.

On the investment criterion of scaling in BoP markets, Kuria's prior experience in Kibera and Nakuru suggested that there would be demand for toilet and shower facilities, not only in slums but also in central business districts and marketplaces where lower-income workers did not have many other options. Ecotact proposed building its first 30 facilities in central business districts and in densely packed marketplaces, with future expansion in slum areas. It would be straightforward enough to count the number of paid uses of the facilities as the primary social impact metric.

Acumen's Nairobi team, however, also had some serious reservations about Ecotact. Building the 30 pilot facilities would require public-private partnership agreements with municipal governments for securing land and for enabling construction and operation. And despite positive data from the existing facilities in Kibera and Nakuru, it was not clear whether each facility would attract enough users and advertising to be financially sustainable, or what the right price point might be. Mukuru summarized the tension:

> Ecotact was not a proven concept and Kuria was not a businessman. There was no balance sheet, no income statement. But he was compelling! I believed he was sincere. He wasn't just trying to sell a story. He didn't have the management skills but the impact was going to be huge! . . . In addition, this was our first public private partnership. It was new to all of us. We had not engaged with government before, so we had no script.

Meridian Medical Centre[11]

The second and more established investment that Acumen was exploring in Kenya was Meridian Medical Centre (sometimes referred to as Meridian). The company ran three for-profit outpatient health clinics in Nairobi, all equipped with modern laboratories and well-stocked pharmacies. Meridian aimed to become the market leader in private health care by establishing a chain of low-cost and high-quality outpatient clinics across the country.

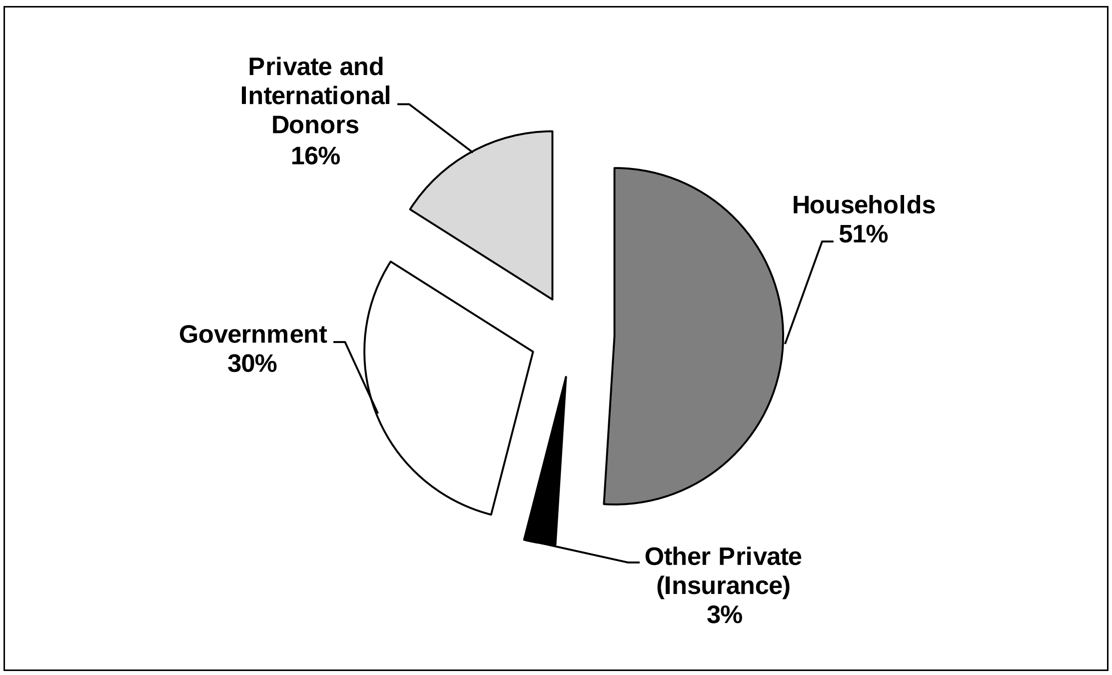
The company was founded by Dr. Peter Wambugu, who had a degree in medicine and surgery and had interned at the Kenyatta National Hospital before joining the World Health Organization as a research physician for four years. He had briefly but unsuccessfully dabbled in the health insurance business, starting his own firm, but it went bankrupt like many other health insurance schemes at the time. He started Meridian in 1995, eventually building a small health service clinic in Nairobi's central business district in 2000. That same year, he was joined by Dr. Ndiba Wairoko as a subsidiary shareholder (10% holding) and chief operating officer. Dr. Ndiba had a reputation as a very popular doctor and a good manager. They built a second clinic in 2006, and a third in 2007, after which they approached Acumen Fund through TBL, the lead investor for expansion. Their target was to build

[11] Acumen Fund Investment Memorandum, Meridian Medical Centre, 2007.

two new clinics in 2008 while also strengthening their headquarters, and two to three clinics each year between 2009–2011 on the outskirts of Nairobi in areas with high population densities. After reaching a total of 10 clinics, Meridian expected to have enough patients to consider inpatient services, and thus to build one or two hospitals in subsequent years.

The size of the insured market in urban centers nationwide was estimated at over 500,000 individuals, with Meridian having only about 0.7% of market share in its three clinics at the time. In addition, the market of uninsured people who paid for health services out-of-pocket was estimated to be about 2.4 million, with a further 6.7 million needing access to affordable health care. Most of this urban market was untapped. National statistics suggested that over half of financing for health care in the country (51%) came from households paying out-of-pocket fees for services (see **Figure B** for sources of health care funding in Kenya).

Figure B Kenyan Health Funding, 2001-2002



Source: Republic of Kenya Ministry of Health, *National Health Accounts 2001-2002* (August 2007), p.xiii, http://www.healthsystems2020.org/content/resource/detail/902/, accessed July 2009.

Meridian Medical Centre's revenue in its three clinics came largely from corporate health plans and other insurance schemes (80%), with the remaining coming from self-managed schemes and walk-in clients, many of whom paid out-of-pocket. Meridian saw considerable potential for growth in reaching both the insured and uninsured urban market segments, despite a number of private, nonprofit, and public competitors. The company appeared to be in sound financial health, with revenues having grown from KES 22 million in 2005 to 38 million in 2006, and estimated to reach 61 million in 2007 (see **Exhibit 8** for income statement projections over five years).

Meridian was in discussion with two investors—Acumen Fund and TBL Mirror Fund (TBL)—regarding a 12.5% equity stake each to support its growth. TBL was a Dutch venture capital firm that matched projects in East Africa with private investors in Europe, providing equity and hands-on investor involvement. If both investors signed on, Dr. Wambugu would retain a majority equity stake, while Dr. Ndiba and an employee share option pool would each retain significant minority holdings. Acumen's investment would amount to KES 15 million (approximately $231,000) to be made in February 2008, with a potential future opportunity of KES 100 million ($1.55 million) to invest in a hospital, should Meridian's long term plans work out. Although Acumen Fund had not yet exited from any of its equity investments, it anticipated that an exit at the end of 2011 could yield a potential internal rate of return of 30% or higher.

As an investment, Meridian was different from Ecotact in many respects. Mukuru explained:

> The key difference was that Meridian Medical Centre was an existing institution that already had 3 clinics up and running. It was a business focused on the bottom line, profit-oriented, and wanted to accelerate its growth. A number of their patients were low-income consumers who got sick more frequently than middle-income patients because of the poor quality of their living conditions. They were not looking for low-income markets but had stumbled across them.

Meridian was profitable, with a CAGR of 66% during the three years from 2005-2007, and its leadership was not new to building a business. There was a need for high-quality and yet accessible and affordable health care in urban centers. Acumen's due diligence summarized the situation:

> Meridian Medical Centre's commitment to the BoP appears genuine though it is not built into the institutional fabric of the organization. Serving the BoP is not part of their mission, it is not explicitly mentioned in their strategic plans, nor do [they] collect any data on the income level of their customers. However, internal estimates suggest that 35-40% of their customers are from the BoP. Furthermore, the senior management has stated that they believe their key opportunity for growth is in the lower and middle market, where there is "less competition and more sickness."[12]

But both Trelstad and Mukuru recognized that reaching the BoP market would not be straightforward, particularly since Meridian's management team did not have a strategy for doing so. In Mukuru's words, "It's one thing to write in the investment memo that they will reach the BoP, but another to see whether they'd actually go downmarket." Trelstad respected the business acumen of Meridian's founders and saw an opportunity in their interest in scaling: "Dr. Wamburu was looking for an opportunity to grow. Our main question was do they have what it takes to serve the poor? How do you prove what income segment they're in, and how do you prove that this gets enough philanthropic bang for the buck?"

In wrapping up its due diligence, Acumen's team in Nairobi prepared investment memos for both of the proposed investments; these would serve as the primary documents for discussion by Acumen Fund's investment committee. Team members tried to anticipate the committee's concerns in order to preempt them in the memos, a process that was internally dubbed *shaitan ka wakil*, (literally "devil's advocate" in Urdu). In some instances, they summarized key strengths and weaknesses in a capabilities assessment matrix (see **Exhibit 9** for part of a matrix template). They also sought to benchmark the cost-effectiveness of the investment against the "best available charitable option" for delivering similar services (discussed in the next section). Taken together, these components of due diligence became building blocks for Acumen's performance measurement model.

[12] Acumen Fund Investment Memorandum, Meridian Medical Centre, 2007, p.10.

Anticipating Performance: the BACO

A major concern for social venture investors has long been the challenge of how to anticipate and measure the cost effectiveness of an investment. Unlike traditional venture capital investments, which rely primarily on financial returns, social investors do not have a standard benchmarked metric.[13] In its own attempt to work through this challenge, Acumen decided to benchmark its investments by answering the question: *For each dollar invested, how much social output will this generate over the life of the investment relative to the best available charitable option (BACO)?* Since no investment occurred in a vacuum, Acumen would have to defend its choices in relation to other options in the same space, particularly nonprofit charities. For the investments to be worthwhile, even if they made a loss, they would have to be more cost effective than traditional charity at achieving a set of social goals.

The BACO calculation sought to help philanthropic investors decide how their funds could be used most effectively by comparing plausible alternatives. This approach compared the investment to a *relative* benchmark rather than an *absolute* one, and proceeded in three steps:[14]

1. *Cost analysis.* The net cost (or revenue) of an investment is calculated simply by taking the total investment plus administrative costs, and subtracting this from the expected return. Under the charitable option, it is usually assumed that the funds are provided as a grant, thus generating no expected returns, but with costs equal to the size of the grant plus any costs of administering it. In comparison, if Acumen's investment takes the form of debt, a return is based on the interest rate charged. For example, one of Acumen's early debt investments was $325,000 in an enterprise that manufactured anti-malaria bednets (A to Z Textile Mills), at an interest rate of 6% annually for 5 years. The cost analysis was a fairly straightforward back-of-the-envelope calculation in which the loan and costs of managing it were subtracted from the expected return.[15] An equity investment would be more difficult to anticipate, but would be based on expected profits.

2. *Social impact projections.* Acumen's assessment of social impact focuses on the number of people affected in BoP markets multiplied by a factor that estimates how they are impacted. For the bednets example, social impact was measured in terms of "person years of malaria protection." This was estimated by multiplying the number of customers in the BoP reached as a result of Acumen's investment by the number of effective years of malaria protection offered by the nets.[16]

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13 A range of tools and approaches to measuring social return have emerged over the past two decades, under labels such as blended value, social return on investment, and double- and triple-bottom lines. Yet the struggle to find practical but comprehensive methods and measures continues. See, for example, Blended Value (www.blendedvalue.org), REDF (www.redf.org/learn-from-redf/publications/119), E+Co (www.eandco.net/EnvironmentalImpact.html), and the Grassroots Business Fund (www.gbfund.org/?q=node/106). For a comparison of several methodologies, see Melinda Tuan, "Measuring and/or Estimating Social Value Creation: Insights into Eight Integrated Cost Approaches," prepared for the Bill and Melinda Gates Foundation, 2008, available at www.gatesfoundation.org/learning/Documents/WWL-report-measuring-estimating-social-value-creation.pdf, accessed June 3, 2009.

14 For further details on this method, see: Acumen Fund Metrics Team, "The Best Available Charitable Option." Acumen Fund, 2007, available at: http://www.acumenfund.org/knowledge-center.html?document=56, accessed April 27, 2009.

15 The cost calculation for the bednets investment was thus simply: Net revenue (cost) = Return – disbursement – costs of managing the loan = ($325,000 at 6% over 5 years) - $325,000 - $130,000 = ($32,500). The figure of $130,000 was an estimate of costs to Acumen of managing the loan during that time period.

16 More precisely, the calculation was: Social Impact of bednets = BoP Impact x Product Efficacy = (total output of nets x investor share) x (persons protected per bednet x percent of customers in BoP) x (number of years of malaria protection per net) = (2,000,000 x 20%) x (2 x 50%) x (5) = 2 million person years of malaria protection.

3. *BACO ratio.* A ratio of the first two calculations (net cost/unit of social impact) provides a cost-effectiveness multiple. It estimates how cost effective the Acumen investment is likely to be in comparison to the best available charitable option. To generate a more comprehensive set of projections, the BACO ratio should be calculated along a range of scenarios of financial return (return of principal + interest, return of principal only, and complete loss) as well as along various projections of social output given that initial projections are likely to be optimistic.[17]

For the Ecotact investment, the best available charitable option was obvious. Practical Action, the NGO where David Kuria had originally designed the sanitation and ablution facilities, was operating several identical facilities that it had built entirely through grant funding. The BACO ratio would compare the cost effectiveness of giving a grant to Practical Action, or giving a loan to Ecotact, for building and running 30 facilities. To calculate the ratio, the Acumen team made several assumptions:

- Number of customer visits, on average = 450 visits/day
- Number of days operating, on average = 23 days/month
- Cost to disburse and manage a grant under Charity option = 20% (above grant amount)
- Cost to disburse and manage a loan under Acumen option = 40% (above loan amount)

In addition, it was assumed that Practical Action would have the capacity to start building all 30 facilities right away and could thus have all of them operating in the second quarter of the first year of the grant. Ecotact, however, would launch 15 facilities during the same time period, with the remaining coming into operation at the start of the second year. Acumen Fund was less clear on how to calculate a BACO ratio for the Meridian investment, since there wasn't an obvious charitable alternative for comparison.

Ultimately, the BACO ratio was intended only to be a rough estimate that would help the Acumen team consider alternatives, but could not in itself justify an investment. Trelstad explained, "The combination of a literature review and BACO give our investment committee confidence that we're supporting something that's been tested or vetted. . . . It could be useful to invest further in the BACO methodology if it helps people think about opportunity costs."

The Investment Committee Deliberates

Acumen Fund's investment committee held several discussions on Meridian and Ecotact between June of 2007 and May of 2008. Their deliberations were informed by multiple sources of information: investment memos for both enterprises; a BACO calculation; preliminary capabilities assessments; and, reflections on the quality of the entrepreneurs offered by Wendy Mukuru, Brian Trelstad, and

[17] For the bednets investment, the net cost per unit of social impact was $32,500/2,000,000 = $0.016 per person year of malaria protection. A similar calculation for the best available charitable option yielded $0.839 per person year. The BACO ratio was thus 0.839/0.016 = 52, suggesting that the Acumen investment would be 52 times more cost effective than the best available charitable option. An analysis of three different financial scenarios (full return on investment, return of principal only, and complete loss) and three social impact scenarios (original investment plan projections, conservative projections based on moderate growth plans, and revised projections based on actual impact data part way into the project) suggested that a more conservative "center" estimate of the BACO ratio or multiple would be 16.

others. In preparing their presentations at the investment committee meetings, Mukuru and her colleagues from the Nairobi office tried to anticipate every possible concern the committee might flag.

The investment committee's discussions were overshadowed by political and social events in Kenya after its December 2007 presidential elections. A wave of violence had spread across the country shortly after the incumbent, Mwai Kibaki, was sworn in for a second term under highly contested circumstances. His rival, Raila Odinga, also claimed to have won the election. Over 1,500 people were killed and some 300,000 were displaced during the crisis, which did not calm until a power-sharing deal was worked out with Kibaki retaining the post of president, and Odinga taking the new seat of prime minister. The power sharing arrangement continued to be unstable in May of 2008, as Mr. Odinga accused Mr. Kibaki of undermining the coalition deal and bypassing ministers from his party in decision-making.[18]

"There was a lot of nervousness about the political risk. Investors were wondering, is this a safe country?" explained Mukuru. For Ecotact, the implications were pronounced:

> How do you manage that risk, when previous contracts were signed by local governments that might no longer be in power? In addition, the Kenyan shilling fell from 69 KES to the US dollar to 80 KES per dollar at this time, so the debt coverage ratio was very very tight, and the cost of construction materials like cement shot up. So there was the question: would they be able to repay a loan based on the changed circumstances?

For Meridian, too, there were serious implications. The TBL Mirror Fund, the Dutch co-investor, was considering pulling out. As Trelstad recalled, "We were thinking seriously about doing the investment, then the world fell apart in Kenya, and TBL began to back off."

[18] British Broadcasting Corporation, "Country profile: Kenya," .2009, See http://news.bbc.co.uk/2/hi/africa/country_profiles/1024563.stm, accessed May 12, 2009.

Exhibit 1 Board Members

Name	Experience
Margo Alexander (Chair)	Former senior executive, Paine Webber and member of the Council on Foreign Relations.
Angela Glover Blackwell	Founder and president of the non-profit organization PolicyLink, and former senior vice president for The Rockefeller Foundation.
C. Hunter Boll*	COO of start-up venture Source Audio LLC, and former managing direction of private equity firm Thomas H. Lee Partners.
Andrea Soros Colombel	Founder and president of the Trace Foundation, established to promote the cultural continuity and sustainable development of Tibetan communities.
Stuart Davidson*	Managing director of Labrador Ventures and director of the Phalarope Foundation; involved in investing in early stage companies.
William E. Mayer	Founder of Park Avenue Equity Partners and founding partner of Development Capital; former professor and Dean of the College of Business and Management at the University of Maryland. Chairman of the Board of Aspen Institute and Chairman of the Board of the University of Maryland.
Catherine S. Muther	Former senior marketing officer at Cisco Systems, and founder and president of the Three Guineas Fund, a foundation that focuses on creating economic opportunity for women and girls.
Robert H. Niehaus	Founder of Greenhill Capital Partners and former managing director at Morgan Stanley & Co.
Jacqueline Novogratz	Founder and CEO, Acumen Fund; Founder and former director of The Philanthropy Workshop and The Next Generation Leadership program at the Rockefeller Foundation.
Michael E. Novogratz	Principal of Fortress Investment Group LLC and former partner at Goldman Sachs.
Ali J. Siddiqui	Principal of JS Group, one of Pakistan’s largest conglomerates, and former director at Crosby Capital Partners.
Joseph E. Stiglitz	2001 Nobel laureate in economics, professor at Columbia University, chair of the university’s Committee on Global Thought, and executive director of the university’s Initiative for Policy Dialogue.

Source: Company website, www.acumenfund.org/community/board-.html, accessed June 2009.

Note: Asterisk (*) denotes membership on the investment committee of the board. The investment committee has a third member, David Blood, whose experience includes: former member of the Acumen Fund board; co-founder, partner, and managing partner at Generation Investment Management LLP, and; former chief executive officer of Goldman Sachs Asset Management.

Exhibit 2 Investments under Management as of May 2008

PORTFOLIO SUMMARY REPORT

Organization	Activity Funded	Portfolio	Country	$ Committed	Investment Type
Active investments					
1298 Ambulances	Private ambulances	Health	India	$1,572,000	Equity
Lifespring	Maternal and pediatric care	Health	India	$1,911,000	Equity
Drishtee	Rural health services	Health	India	$55,000	Equity
Drishtee	Rural health services	Health	India	$283,000	Debt and grant
Drishtee	Rural health services	Health	India	$1,620,000	Equity
VisionSpring	Affordable reading glasses	Health	India	$500,000	Debt
BEEPZ	Antimalarial medication	Health	Kenya	$2,251,000	Debt and equity
SHF	Health clinics	Health	Kenya	$125,000	Debt
BroadReach	HIV/AIDS programs	Health	South Africa	$1,750,000	Debt
DART	Products to combat malaria	Health	Kenya	$250,000	Equity
A to Z Textile Mills	Anti-malarial bednets	Health	Tanzania	$675,000	Debt and grant
Voxiva	Health care communication	Health	South Africa	$500,000	Equity
Voxiva	Health care communication	Health	South Africa	$766,000	Equity
Sehat 1st	E-health consulting	Health	Pakistan	$200,000	Equity
Books of Hope	Speaking books for health	Health	South Africa	$150,000	Debt
Al Nadim	Women's Employment	Housing	Egypt	$300,000	Debt
Sekem	Organics	Housing	Egypt	$175,000	Equity
Jamii Bora	Urban planning	Housing	Kenya	$250,000	Debt
FMiA	Microinsurance	Housing	Pakistan	$1,284,000	Equity and loan guarantee
Kashf Foundation	Micro-lending for women	Housing	Pakistan	$1,412,000	Debt and equity
Kashf Foundation	Micro-lending for women	Housing	Pakistan	$900,000	Debt
Kashf Foundation	Micro-lending for women	Housing	Pakistan	$353,000	Debt and grant
Saiban	Affordable housing	Housing	Pakistan	$303,000	Debt and grant
Saiban	Affordable housing	Housing	Pakistan	$87,000	Grant
EPGL	Clean water	Water	India	$62,000	Equity
Aqua Aero Water Systems(Water Pyramid)	Water in drought-prone areas	Water	India	$55,000	Grant
GEWP	Drip irrigation	Water	India	$970,000	Equity
Water Health International	Safe drinking water	Water	India	$1,369,000	Loan guarantee
Water Health International	Safe drinking water	Water	India	$294,000	Loan guarantee
Water Health International	Safe drinking water	Water	India	$600,000	Equity
Micro Drip	Drip irrigation	Water	Pakistan	$500,000	Debt and equity
Water Health International	Safe drinking water	Water	Sri Lanka	$100,000	Grant
Total active investments				***$21,622,000***	

PORTFOLIO SUMMARY REPORT

Organization	Activity Funded	Portfolio	Country	$ Committed	Investment Type
Investments exited or written off					
Care With Love	Home health care	Health	Egypt	$50,000	Debt and grant
Medicine Shoppe	Urban medical clinics	Health	India	$1,405,000	Equity
Medicine Shoppe	Urban medical clinics	Health	India	$1,089,000	Equity
Aravind Telemedicine	Telemedicine - Eyecare	Health	India	$208,000	Grant
Satelife	PDAs for disease management	Health	Kenya	$324,000	Grant
A to Z Textile Mills	Anti-malarial bednets	Health	Tanzania	$325,000	Debt
Project Impact	Affordable hearing aids	Health	United States	$400,000	Grant
SSI	Immunosensors for disease testing	Health	United States	$430,000	Grant
Voxiva	Health care communication	Health	United States	$134,000	Debt
Sekem	Organic farming	Housing	Egypt	$175,000	Debt
Heritage	Peri-urban water distribution	Water	India	$300,000	Grant and loan guarantee
IDE India	Drip irrigation products	Water	India	$100,000	Grant
Mytry	De-flouridization filters	Water	India	$145,000	Grant
D.Light Design	Light for areas without access to electrical grids	Energy	India	$200,000	Debt
Flowing Currents		Energy	Sri Lanka	$210,000	Loan guarantee
Total exited or written off				***$5,495,000***	

Source: Company documents. Figures in the table are approximate and intended for classroom discussion purposes only.

Exhibit 3 Primary Funding Sources, 2007–2008

Acumen Fund Stewards ($5,000,000+)

Aman Foundation • Andrea Soros Colombel & Eric Colombel • Bill & Melinda Gates Foundation • Lundin for Africa Foundation • The Robert & Kate Niehaus Foundation • Raj & Asha Rajaratnam • Amy Robbins • The Sapling Foundation • The Three Dogs Foundation

Leadership Partners ($1,000,000 +)

Abraaj Capital Employees • The Alexander Family Foundation • Blood Family Foundation • C. Hunter & Pamela T. Boll • Peter & Devon Briger Foundation • d.o.b foundation • Global Alliance for Improved Nutrition • Google.org • LF Foundation • Partridge Foundation • Mahvash & Jahangir Siddiqui Foundation • Skoll Foundation • Catherine & Niklas Zennström

Keystone Partners ($500,000 +)

Anonymous (2) • Cisco Systems Foundation • Sidney E. Frank • Julius Gaudio & Chandra Jessee • W.K.Kellogg Foundation • Lehman Brothers • Catherine S. Muther • Phalarope Foundation

Sustaining Partners ($250,000 +)

Anonymous (2) • DCD America, Inc • Nathan Laurell • Gib & Susan Myers • Nike Foundation • Nandan Nilekani • GV Prasad • The Edmond & Benjamin de Rothschild Foundations • The Shelly and Donald Rubin Foundation, Inc • John L.Thornton • George W. & Patricia A. Wellde • Woodcock Foundation

Senior Partners ($100,000 +)

Anonymous (3) • Diana Barrett • Bruce Campbell • The Dow Chemical Company • Fiona & Stanley Druckenmiller • Goldman Sachs • Tim Hodgson & Linda Netten • IDEO • Irving Foundation • Jill & Ken Iscol • David and Anita Keller Foundation • Kingdom Foundation • KL Felicitas Foundation • Lodestar Foundation • William E. Mayer • The MCJ Foundation • Miles Morland • The One Foundation • Michael & Sarah Peterson • Salesforce.com Foundation • Select Equity Group Foundation • Sheirah Foundation • Jose & Trish Suarez • Shaukat Tarin • The Tokyo Foundation • Tudor Investment Corporation • Jay & Eileen Walker

Associate Partners ($50,000 +)

Anonymous • Sherry Agar • Syed Babar Ali • Herb Allen III • William W. Allen • Apex Foundation • Atticus Trust • Karin Helene Bauer • Rod Berens • The Brinson Foundation • Peter Cain • Farrokh Captain • The ClaraFund • Jay & Randi Coen Gilbert • The Cohn Family Foundation • Simone & Tench Coxe • Mr. & Ms. Wesley R. Edens • Liz & Ed Ellers • Ann & Thomas L. Friedman • I Jerome Hirsch • The globalislocal Fund • Charles & Susan Harris • Alan Hassenfeld • Lyndon Haviland • Maggie Kaplan • Charles and Roberta Katz Family Foundation • Peter Kellner • Dr. Anjali Gupta & Rajan Kundra • Howard Lee Morgan • Joe & Amy Novogratz • Liebe & Bill Patterson • Tino Puri • Resnick Family Foundation, Inc. • David Ring & Stuart Harrison • Roll International Corporation • Rural India Support Trust • Harriet Mouchly-Weiss • Kashif Zafar

Development Partners ($10,000 +)

Anonymous (4) • Adessium Foundation • Ravi Akhoury • Dwight Anderson • AOL Time Warner Foundation • Ralph & Dorothy Bahna • David & Keira Barry • Better World Fund • Katherine Collins • Thomas Cooper • Credit Suisse • The Dar Mac Foundation • Laurent Demuynck & Maia Ming Fong • Francis K. Dibner Fund • Matthew Dontzin • Glenn & Eva Dubin • Wes Fuller • Katherine Fulton & Katharine Kunst • Shamaya Gilo • Leslie Gimbel • GOOD Magazine • Lesley Goldwasser & Jonathan Plutzik • Grassroots.org • Leith Greenslade & Dominic Wilson • GSRD Foundation • Paul Hastings • Marten Hoekstra • George & Joan Hornig • The Jim Hornthal Family Foundation • Hunter Douglas • Munib & Kamila Islam • Christine A. Jacobs Family Foundation • Laird Norton Family Foundation • Laura & Gary Lauder • Geraldine Laybourne • Lemelson Foundation • Louie-Marsh Family Fund • Rachael McAdams • Jennifer R. McCann • Bill & Betsy Meehan • Geeta & Krishen Mehta • Neerj Mehta & Jennifer Mehta • Merrill Lynch & Co, Inc. • Murray Metcalfe & Nancy Lukitsh • Peter F. Moore • Morgan Stanley • Nathan Cummings Foundation • New York Life Insurance Company • John & Tina Novogratz • Gerry Ohrstrom • Petersmeyer Family Foundation • Sean Phelan & Audrey Mandela • PricewaterhouseCoopers • Puricom Water Industrial Corporation • Pzena Investment Management, LLC • Rory Riggs • Gary Rindner • Doug & Christine Rohde • David Rose • William Rosenzweig & Carla Fracchia • S and P Goodwill Fund • Malik & Najmi Sarwar • John Schaetzl • Dhiren & Katie Shah • Lindsay & Brian Shea • Romita Shetty & Nasser Ahmad • Sharique Siddiqui • The Silver Family Foundation • Jonathan & Jennifer Soros • Masahiko Sumiya • Susquehanna Foundation • David and Peggy Tanner Philanthropic Fund • Dan Toole & Beth Verhey • Mr. & Mrs. James R. Treptow • UBS Financial Services Inc • Denise & Ira Wagner • Jeffrey C. & Suzanne C. Walker • White & Case LLP • Anita & Byron Wien • Syed Ali Zaidi

Founding Partners

The Alexander Family Foundation • Apex Foundation • C. Hunter & Pamela T. Boll • Cisco Systems Foundation • I Jerome Hirsch • Charles and Roberta Katz Family Foundation • W.K.Kellogg Foundation • Laura & Gary Lauder • Jennifer R.McCann • Catherine S. Muther • The Novogratz-Caceres Family Foundation • Phalarope Foundation • The Sigrid Rausing Trust • The Rockefeller Foundation • The Sapling Foundation • Lindsay & Brian Shea • Andrea Soros Colombel & Eric Colombel • TOSA Foundation • George W. & Patricia A. Wellde • William H.A. Wright II

Source: Company website, http://www.acumenfund.org/community/partners.html, accessed June 2009.

Exhibit 4a 2007 Balance Sheet

	2007							
	Unrestricted					Temporarily	Consolidating	
	Operating				Portfolio Funds	Restricted	and	
	Acumen Fund, Inc.	Acumen Fund, India	Acumen Fund, Pakistan	Total Operating	Acumen Fund, Inc.	Acumen Fund, Inc.	Eliminating Entries	Total
Assets								
Cash and cash equivalents	$19,796,064	$515,575	$36,940	$20,348,579	$--	$4,120,187	$--	$24,468,766
Certificates of deposits	1,000,000	--	--	1,000,000	294,000	--	--	1,294,000
Investments in marketable securities	1,284,777	--	--	1,284,777	--	--	--	1,284,777
Pledges receivable, net	2,239,450	--	--	2,239,450	--	30,228,261	--	32,467,711
Accrued interest receivable	15,020	--	--	15,020	117,818	--	--	132,838
Loans to subsidiaries								
Accounts and other receivables	4,252	69,868	--	74,120	6,834	--	(64,674)	16,280
Prepaid expenses and other current assets	43,227	5,941	3,685	52,853	--	--	--	52,853
Program-related portfolio loans receivable	--	--	--	--	4,148,303	--	--	4,148,303
Program-related portfolio equity investments	--	--	--	--	7,284,655	--	--	7,284,655
Investments in subsidiaries	500,959	--	--	500,959	--	--	(500,959)	--
Interest in charitable remainder trust	--	--	--	--	--	340,932	--	340,932
Property and equipment, at cost, net of accumulated depreciation	433,320	93,959	9,732	537,011	--	--	--	537,011
Security deposits	2,029	21,721	457	24,207	--	--	--	24,207
TOTAL ASSETS	**$25,319,098**	**$707,064**	**$50,814**	**$26,076,976**	**$11,851,610**	**$34,689,380**	**$(565,633)**	**$72,052,333**
Liabilities and Net Assets								
Liabilities								
Accounts payable and accrued expenses	$481,446	$47,189	$15,827	$544,462	$--	$--	$(64,674)	$479,788
Salaries payable and accrued vacation	142,068	464	6,281	148,813	--	--	--	148,813
Deferred capital contribution	--	--	--	--	--	--	--	--
Long-term loan—Acumen Fund New York	--	--	--	--	--	--	--	--
Total Liabilities	623,514	47,653	22,108	693,275	--	--	(64,674)	628,601
Commitments and Contingencies								
Net Assets								
Unrestricted	24,695,584	--	28,706	24,724,290		--	158,452	24,882,742
Operating	--	--	--	--	11,851,610		--	11,851,610
Portfolio Funds	24,695,584	--	28,706	24,724,290	11,851,610		158,452	36,734,352
Temporarily restricted	--	--	--	--	--	34,689,380	--	34,689,380
Contributed capital	--	554,506	--	554,506	--	--	(554,506)	--
Stockholder's Equity	--	104,905	--	104,905	--	--	(104,905)	--
Total Net Assets	24,695,584	659,411	28,706	25,383,701	11,851,610	34,689,380	(500,959)	71,423,732
TOTAL LIABILITIES & NET ASSETS	**$25,319,098**	**$707,064**	**$50,814**	**$26,076,976**	**$11,851,610**	**$34,689,380**	**$(565,633)**	**$72,052,333**

Source: Company documents.

Exhibit 4b 2007 Income Statement

	2007							
	Unrestricted					Temporarily Restricted	Consolidating and	
	Operating				Portfolio Funds		Eliminating	
	Acumen Fund, Inc.	Acumen Fund, India	Acumen Fund, Pakistan	Total Operating	Acumen Fund, Inc.	Acumen Fund, Inc.	Entries	Total
Changes in Unrestricted Net Assets								
Revenue, Gains and Other Support								
Contributions	$14,978,935	$	$ 165,101	$15,144,036	--$	$29,818,418	(139,100)	$44,823,354
Write-off of prior year contributions	--	--	--	--	--	(250,000)	--	(250,000)
Provision and reserve for uncollectible amounts								
Fundraising event income	1,128,250	--	--	1,128,250	--	--	--	1,128,250
Less: Direct expenses	(181,210)	--	--	(181,210)	--	--	--	(181,210)
Donated services	1,264,730	--	--	1,264,730	--	--	--	1,264,730
Program fees	--	697,390	--	697,390	--	7,853	(697,390)	7,853
Interest income—program-related portfolio loans	--	--	--	--	156,707	--	--	156,707
Loss on portfolio investment	--	--	--	--	(40,060)	--	--	(40,060)
Investment income	665,601	--	--	665,601	74,080	121,614	--	861,295
Change in value of charitable remainder trust	--	--	--	--	--	25,098	--	25,098
Other income	11,977	2,209	24	14,210	--	--	--	14,210
	17,868,283	699,599	165,125	18,733,007	190,727	29,722,983	(836,490)	47,810,227
Appropriations to portfolio funds	(2,256,139)	--	--	(2,256,139)	2,256,139	--	--	--
Satisfaction of program restrictions	1,329,684	--	--	1,329,684	1,505,126	(2,834,810)	--	--
Total Revenue, Gains and Other Support	16,941,828	699,599	165,125	17,806,552	3,951,992	26,888,173	(836,490)	47,810,227
Expenses								
Program Services								
Portfolio expenses	2,562,062	583,443	136,419	3,281,924	150,000	--	--	3,431,924
Education and Outreach	252,393	--	--	252,393	--	--	--	252,393
Knowledge & Communication	474,958	--	--	474,958	--	--	--	474,958
Country offices	1,244,039	--	--	1,244,039	--	--	(836,490)	407,549
Fellows	855,612	--	--	855,612	--	--	--	855,612
Total Program Services	5,389,064	583,443	136,419	6,108,926	150,000	--	(836,490)	5,422,436
Supporting Services								
Management and general	1,040,873	--	--	1,040,873	--	--	--	1,040,873
Fundraising	622,500	--	--	622,500	--	--	--	622,500
Total Supporting Services	1,663,373	--	--	1,663,373	--	--	--	1,663,373
Total Expenses	7,052,437	583,443	136,419	7,772,299	150,000	--	(836,490)	7,085,809
Increase in unrestricted net assets before foreign currency exchange gain (loss)	9,889,391	116,156	28,706	10,034,253	3,801,992	26,888,173	--	40,724,418
Foreign currency exchange gain (loss)	(16,319)	(36,317)	--	(52,636)	6,212	--	53,547	7,123
Increase (Decrease) in Net Assets	9,873,072	79,839	28,706	9,981,617	3,808,204	26,888,173	53,547	40,731,541
Net assets, beginning of year	14,822,512	234,846	--	15,057,358	8,043,406	7,801,207	(209,780)	30,692,191
Contributed capital	--	344,726	--	344,726	--	--	(344,726)	--
Net Assets, End of Year	$24,695,584	$659,411	$28,706	$25,383,701	$11,851,610	$34,689,380	(500,959)	$71,423,732

Source: Company documents.

Exhibit 5a Sample Data from Sanitation Facility in Nakuru Run by Practical Action: Twenty-six Days of Data in May 2007

Aggregate Data: May 2, 2007 to May 31, 2007 All amounts in Kenyan shillings (KES)	Average Daily Visits	Cost/Visit	Revenue/ Day
Average utilization of men's toilets per day	200	5	999
Average utilization of women's toilets per day	80	5	398
Average utilization of children's toilets per day	2	5	12
TOTAL per day	282		1,409

Source: Company documents

Exhibit 5b Sample Data from Sanitation Facility in Nakuru Run by Practical Action: Summary of Twelve Days of Data from April 2007

Date	Opening Cash (in KES)	Expenditure	Income	Closing Cash	Amount Received
Fri March 30	4,602	2,310	1,380	72	3,600
Sat March 31	72	55	595	612	
Mon April 2	612	906	1,355	1,061	
Tue April 3	1,061	100	1,015	1,976	
Wed April 4	1,976	100			1,500
Thu April 5					1,165
Fri April 6				420	2,500
Sat April 7	420	342	560	1,278	
Mon April 9	738		540	1,278	
Tue April 10	1,278	100	1,410	2,588	
Wed April 11	2,588	326	1,230	3,492	
Thu April 12	3,492		1,275	4,767	
Fri April 13	4,767	5,000	1,030	797	5,000
Sat April 14	797		525	1,322	
Mon April 16	1,322	475			
Tue April 17	2,077	455	1,185	2,807	
Wed April 18	2,807	79		3,778	
Thu April 19	3,778	321	1,195	4,652	

Analysis	Costs	Revenue	Gross Profit	Visits (calculated)
TOTAL	**10,569**	**13,295**	**2,726**	**2,659**

Source: Company documents.

Exhibit 6 Photographs of Ecotact Toilet and Shoe Shine Facilities in Nairobi, Kenya

Source http:/ / www.flickr.com/ photos/ wateradvocates/ 3306962447, accessed June 2009.

Source: http:/ / www.flickr.com/ photos/ wateradvocates/ 3306945001/ , accessed June 2009.

Exhibit 7 Ecotact Projected Income Statement 2008–2016 (KES)

	Income Statement						
	H2 2007	2008	2010	2012	2014	2016	CAGR
# Active Facilities	15	30	30	30	30	30	**8%**
Revenues							
Facility	738,000	11,110,950	19,061,872	20,631,150	21,842,147	22,751,010	**7%**
Shoeshine	150,000	2,404,400	3,786,934	4,025,156	4,262,614	4,522,208	**10%**
Advertising	345,000	5,540,700	9,151,131	10,321,410	11,557,153	12,985,617	**9%**
Total Revenue	1,233,000	19,056,050	31,999,936	34,977,716	37,661,914	40,258,834	**9%**
Growth(annual)		*672.8%*	*4.8%*	*4.5%*	*3.5%*	*3.3%*	
Unit-Level Operating Expenses							
Total operating expenses	1,122,240	7,041,998	10,258,601	11,089,319	11,939,486	12,698,871	
Corporate Expenses							
Total corporate expenses	1,536,000	3,236,580	3,507,074	3,803,399	4,128,094	4,483,952	**4%**
EBITDA	-1,425,240	8,777,572	18,234,261	20,084,998	21,594,334	23,076,011	**12%**
Debt service (principal and int)	--	3,987,041	6,379,265	6,379,265	6,379,265	2,392,225	
Depreciation	140,625	207,678	155,774	578	58	6	
EBITDA margin	-115.59%	*46.06%*	*56.98%*	*57.42%*	*57.34%*	*57.32%*	
Net Profit Before Tax	-1,565,865	4,582,853	11,699,221	13,705,55	15,215,011	20,683,780	**20%**
Provisions for taxes	--	1,374,856	3,509,766	4,111,546	4,564,503	6,204,134	
Net Profit After Tax	-1,565,865	3,207,997	8,189,455	9,593,608	10,650,508	14,478,646	**20%**
Year-end debt coverage ratio		*2.41*	*2.88*	*3.16*	*3.43*	*N/A*	

Source: Company documents.

Notes:

- Projections assume the base case financial model, a 7% interest rate, and an eight-year tenure. A six-month repayment holiday (with accrued interest) is assumed.
- Debt amount is assumed to be Ksh 37,500,000 (US$ 551,500), which is the cost to build 30 facilities.
- Debt is staged into two equal tranches separated by three quarters.
- Since they are owned by the municipalities, the facilities are not considered depreciable assets.
- In years 6–10 a municipal land fee of Ksh 10,000/ facility/ year is assumed.

Exhibit 8 Meridian Medical Centre's Financial Projections: Income Statement (KES)

	Forecasts 2007	Forecasts 2008	Forecasts 2009	Forecasts 2010	Forecasts 2011
Sales					
Clinical	16,470,000	24,786,000	34,813,800	47,104,740	60,583,977
Pharmacy	24,400,000	36,720,000	51,576,000	69,784,800	89,754,040
Laboratory	17,690,00	26,622,000	37,392,600	50,593,980	65,071,679
X-Ray	2,440,000	3,672,000	5,157,600	6,978,480	8,975,404
Turnover	61,000,000	91,800,000	128,940,000	174,462,000	224,385,100
Other income	0	0	0		
TOTAL INCOME	**61,000,000**	**91,800,000**	**128,940,000**	**174,462,000**	**224,385,100**
Growth		*50%*	*40%*	*35%*	*29%*
COST OF SALES					
Pharmacy Tenders	14,640,000	22,032,000	30,945,600	41,870,880	53,852,424
Consultancy	823,500	1,239,300	1,740,690	2,355,237	3,029,199
X-Ray	732,000	1,101,600	1,547,280	2,093,544	2,692,621
Laboratory	3,538,000	5,324,400	7,478,520	10,118,796	13,014,336
Others					
Total	**19,733,500**	**29,697,300**	**41,712,090**	**56,438,457**	**72,588,580**
TOTAL COST OF SALES	**19,733,500**	**29,697,300**	**41,712,090**	**56,438,457**	**72,588,580**
GROSS PROFIT	**41,266,500**	**62,102,700**	**87,227,910**	**118,023,543**	**151,796,520**
Gross Profit Margin	*68%*	*68%*	*68%*	*68%*	*68%*
OVERHEADS					
Telephone & Postage	771,256	925,507	1,110,609	1,221,670	134,3836
Marketing	951,280	3,800,000	4,854,000	5,339,400	587,3340
Stationery	643,924	772,709	927,251	1,019,987	1,121,973
Laundry & Cleaning	377,312	452,774	543,329	597,662	657,428
Gen. Rep. & Maintenance	515,285	618,342	742,010	816,211	897,833
Reg, Subs & Licenses	129,960	168,948	219,632	241,596	265,755
Insurance	640,000	768,000	921,600	1,013,760	1,115,136
Audit & Accountancy	58,000	69,600	83,520	91,872	101,059
Travel	203,060	243,672	292,406	321,647	353,812
Staff Welfare & Training	691,900	937,707	1,313,539	1,711,078	2,131,287
Salaries	19,000,000	25,750,000	36,070,600	46,987,261	58,526,458
Rent of Premises	2,705,722	4,698,638	6,749,217	8,918,602	11,212,076
Bank Charges	230,000	230,000	253,000	278,300	306,130
Legal Fees	200,000	260,000	312,000	343,200	377,520
Depreciation	967,523	1,975,642	6,481,732	8,611,299	11,458,474
Interest Expense	269,202	530,106	-607,132	-469,705	-526,167
Other Expenses					
Total Overheads	**28,354,424**	**42,201,645**	**60,267,314**	**77,043,828**	**95,215,950**
Operating Profit	**12,912,076**	**19,901,055**	**26,960,596**	**40,979,828**	**56,580,570**
	21%	*22%*	*21%*	*23%*	*25%*
Taxation	3,873,623	5,970,317	8,088,179	12,293,914	16,974,171
Net Profit	9,038,453	13,930,739	18,872,418	28,685,800	39,606,399
Retained Profit B/Fwd	8,115,779	17,154,232	31,084,971	49,957,389	78,643,180
Retained Profit C/Fwd	**17,154,232**	**31,084,971**	**49,957,389**	**78,643,189**	**118,249,588**

Source: Company documents.

Exhibit 9 Capabilities Assessment Matrix (partial excerpt)

	Subcategories	1	2	3	4
Commitment to Acumen Fund Mission	Commitment to BoP	Has demonstrated little commitment to serving BoP customers	Some stated interest in BoP markets, but little actual experience to date	Stated interest and tentative explorations into BoP starting to generate lessons learned	Strong stated commitment to BoP markets and significant experience to date
	Commitment to market solutions	Believes charity or government aid is the best approach to supporting the BoP	Believes subsidies or government contracts are required to make markets effective	Believes in using subsidies or government to stimulate private markets	Firm commitment to finding market-based solutions to delivering critical goods and services to the poor
	Ambition to scale	Willing to consider moderate expansion at current site	Willing to expand at current site and replicate program at other sites; with potential to hit 10x growth	Ambitions to grow by an order of magnitude and beyond within five years	Aspirations to create regional, national, or international program that reaches 1M consumers
Financial Sustainability	Cost recovery	Recovers less than 10% of its costs	Recovers 10%–50% of its costs	Recovers 50%–100% of its costs	Recovers over 100% of its costs
	Financial plan	Poor financial plan in place, lacking adequate controls	Financial plan in place, but disconnected from organization's operations (good accounting but not good planning)	Financial plan is an operational tool with clear targets; some weak assumptions, but otherwise fundamentally sound	Financial plan fully integrated into operation's and strategy; well crafted and carefully designed
	Timeline for sustainability	Not seeking financial sustain-ability; or just starting to discuss options for sustainability, but no real business model in place	Taking steps toward sustainability, but likely achievable in 6- to 10-year time horizon	Projected to be sustainable in less than 5 years	Currently sustainable
Potential for Scale	Output	Reaching <10,000; no growth or falling output; one of many players at regional level	Reaching >10,000 people; no significant growth in scale from before; small player	Reaching >100,000 people; 5x prior output and small player at regional level	Reaching >1 million people; 10x prior output and leading player in solving regional or national problem
Potential for Social Impact	Impact of product on quality of life of the poor	Product/service has little potential to improve the quality of life of the poor; serious potential for unintended consequences	Product/service has some potential to improve the quality of life of the poor	Product/service has signify-cant potential to improve the quality of life of the poor	Compelling evidence outlining the product's/service's significant impact on quality of life of the poor
	Systems change	No identifiable systems change or potential unclear	Identifiable potential for minor systems change	Product/service demonstrates potential for significant systems change	Observable systems change in the industry resulting from the product, service, or investment process
Management Capacity	CEO/entrepreneurs	First-time entrepreneur with little or no business building experience; compelling but muddled vision and little capacity to lead	Entrepreneur with some experience in building a growing enterprise; clear vision	Entrepreneur with either compelling vision or strong capabilities and experience in managing growing enterprise (but not both)	Seasoned entrepreneur with numerous successful ventures; clear and compelling visionary with management experience and skills to build enterprise
	Management team	No management team beyond founder	Incomplete management team in key positions; several low-quality team players	Building team with most key positions filled with strong people; plausible successor on team	High-quality people in all major functional leadership positions; strong number 2 identified

Source: Company documents.