
Acumen

Goldilocks Toolkit

Innovations for Poverty Action

poverty-action.org/goldilocks



Right-fit monitoring and evaluation (M&E) systems embody the principles of Credible, Actionable, Responsible, and Transportable, or CART. In the Goldilocks case study series, we examine the M&E systems of several innovative organizations and explore how the CART Principles can work in practice.

Acknowledgements: The Goldilocks toolkit was authored by Mary Kay Gugerty, Dean Karlan, and Delia Welsh. Lead authors for this toolkit resource also include Megan McGuire and Tetyana Zelenska, with editing and design by the IPA Communications Team (David Batcheck, Laura Burke, Jennifer Cowman, Heidi McAnnally-Linz, Megan McGuire).

Acumen: Defining Impact in Impact Investment

Acumen raises charitable donations to invest in enterprises that help solve some of the world's toughest social problems. As a non-profit impact investor, the organization invests with 'patient capital' meaning it invests in seemingly risky markets that may require working over a longer time horizon to develop viable businesses producing goods and services that benefit the poor. Through these investments, Acumen aims to maximize social return while also turning a profit, which also supports the sustainability of the enterprises in the long run. Among supporters of impact investment, this is known as a "third way" for international development assistance, occupying a space in between traditional philanthropy and for-profit private enterprise.

Acumen has been a leader in pushing for a more concrete definition of social impact in impact investing. The organization prioritizes two things in its own approach to monitoring and evaluating its investments: first, to measure impact as rigorously as possible

and second, to create data systems that respond to the decision-making needs of the companies in its portfolio. Acumen employs a number of tools and processes that help meet these priorities, such as a due diligence process that defines a theory of change and establishes key social impact metrics. Acumen has also recently made a big push to improve the feasibility of impact reporting through its Lean Data Initiative, which helps enterprises and investment managers focus data collection on the top priorities for operational data use.

In this case, we examine the theories of change and measurement strategies for two Acumen investments to serve as examples of the Acumen approach. We find Acumen's work on the theory of change for each investment to be quite strong. Our recommendations focus on the Goldilocks principles of Credible and Responsible, suggesting improvements to the measurement strategy along two lines: 1) strengthening theories of change to include a more complete recognition

of the potentially broader social impact of its investments, including third-party positive or negative impacts, such as those that occur when one business simply displaces sales or employment from another, and 2) focusing on conducting impact evaluations only when credible results are viable.



Photo: Will Boase

What They Do

Like other impact investors, Acumen aims to generate private-sector solutions to development problems by providing debt or equity investments in early-stage companies that provide goods and services to the poor. In the past ten years, Acumen has invested \$88 million in 82 companies across the developing world.

Prior to investing in a company, Acumen completes due diligence on each investment to evaluate the viability of the business model and the strength of the potential investment in three core areas: Breadth, Depth, and Poverty Focus. These pillars guide investment decisions and serve as the foundation for the monitoring and evaluation strategy for each investment:

- **Breadth** encompasses the notion of scale and refers to the number of people reached by the business within a given period of time. This number includes people directly and indirectly affected by the business or its product. Acumen typically applies a usage multiplier to measure breadth. The multiplier is based on a firm's best estimate of how many individuals are affected by a product or service, multiplied by the number sold. The number of jobs created by the firm may also contribute to measuring breadth.

- **Depth** measures the change in the well-being of the household receiving the service or product,

defined according to the expected outcome of the investment. A number of different tools are used to measure the depth of social impact, each tailored to the type of impact the firm expects to have. Examples include changes in income, consumption, or nutrition.

- **Poverty Focus** is measured by the percentage of potential consumers who fall below the poverty line. Acumen uses the Progress out of Poverty Index (PPI), a short survey of household characteristics and assets that determines the likelihood that a household is below the poverty line.

As part of due diligence, Acumen reviews the evidence from relevant studies on the effectiveness of the firm's product or service in solving social problems. In sectors where Acumen has made previous investments, past experience supplements the evidence gathering process. The theory of change for each investment and the supporting evidence are documented in a Social Impact Template, which also outlines a measurement and data collection strategy to be developed at a later stage.

The Lean Data Initiative aims to make data collection more efficient and decision-oriented while also improving impact measurement of individual investments. The initiative has focused on a few test cases deploying well-designed, efficient surveys through new technologies to minimize costs and reach relevant respondents. Two investments that include Lean Data approaches are:

1. **SolarNow** is a Ugandan company that sells and finances modular solar home and commercial systems. The modular systems allow customers to start with a basic system which can run a few lights and mobile chargers, and

then upgrade it to accommodate larger appliances over time. The company has a network of franchised stores offering buyers an 18-month "Pay-Plan" financing credit. Customers with good repayment histories can use the credit to upgrade their systems over time, or to purchase household appliances like TVs and refrigerators.

During due diligence, Acumen was initially concerned about the affordability of the systems—the home system sells for \$500, likely out of reach for poor households. However, Acumen made the decision to invest in the firm after SolarNow created the credit facility and conducted a client survey to demonstrate that approximately 35% of current clients earned less than \$4 per day, aligning with Acumen's goal of reaching the poor.

2. **KZ Noir** is a Rwandan coffee company that aims to produce high-grade coffee while also increasing the earnings of smallholder coffee farmers that grow the coffee. The company

operates eight coffee-washing stations in Rwanda and buys coffee cherries from nearly 10,000 farmers. KZ Noir purchases high-quality coffee cherries from farmers to process and sell on the premium export market. Other specialty coffee companies have struggled to purchase a sufficient volume of high-quality beans and to turn profits – nearly 40 percent of premium coffee-washing stations fail to reach profitability.¹ These stations face a number of challenges, including quality-control issues and a lack of investment by farmers to produce high-quality coffee, which is time and resource intensive.

KZ Noir believes it can support farmers in overcoming these barriers to profitability in growing specialty coffee, which will also increase farmer incomes and reduce the financial volatility they face. For example, KZ Noir trains farmers in new practices to harvest premium-grade coffee and plans to share the premium it gets on the export market with farmer groups.

Theory of Change

Acumen raises charitable donations to invest in enterprises that have the potential to improve the lives of the poor, but that struggle to find financing through traditional means. Acumen's theory of change is based on the idea that investment in these businesses will allow them to grow, become profitable, and reach the poor—either by creating new employment opportunities or through products that serve them.

During the due diligence phase, Acumen develops a theory of change for each investment. These map out how the company or its product or services will reduce poverty and identify the assumptions and risks in the theory. Acumen staff then use the theory

of change to identify key metrics for measuring whether the theory of change holds up in practice. Prior to Acumen's due diligence process, most of the enterprises it invests in had not developed an explicit theory of change.²

SolarNow: Acumen expects that the credit-financed solar energy system will increase the number of households and schools with access to reliable, clean energy for lighting and mobile charging. With access to solar power, households will reduce kerosene consumption, saving money otherwise spent on it; income will increase from longer business hours and phone charging; and students will benefit from longer study hours as a result of

more lighting in boarding schools. This should lead to increased net income and improved health from reduced indoor air pollution. Acumen also identifies critical assumptions and risks in the theory of change, including the assumption that consumers may not shift from kerosene to solar lighting to the full extent possible and the risk that consumers may not use the systems correctly.

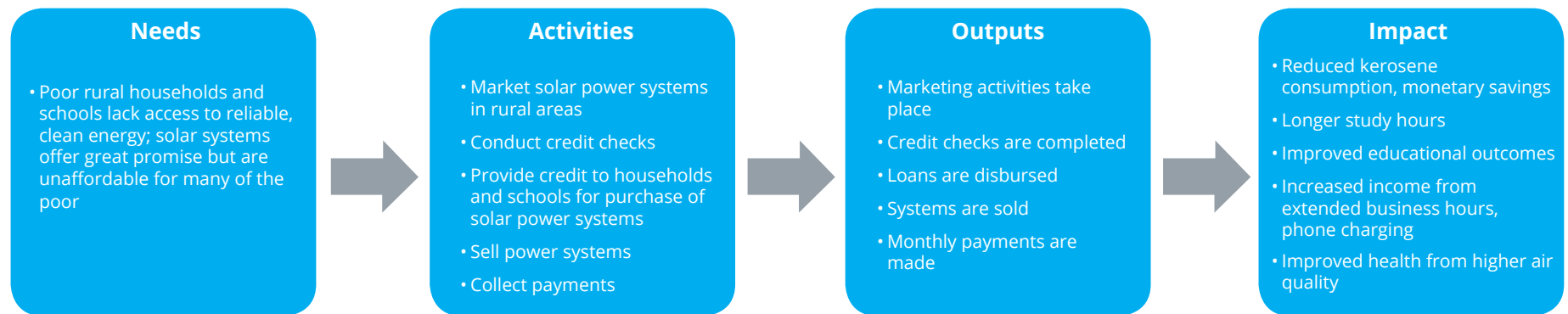


FIGURE 1. SOLARNOW THEORY OF CHANGE

KZ Noir: The theory of change for KZ Noir is based on the belief that farmers lack the practices, inputs, and access to consistent markets required to produce large volumes of high-quality coffee. Coffee is often not the primary crop for farmers, and they put a less than optimal effort into its cultivation. As a result, farmer income is lower than it could be, while low supply prevents Rwandan coffee from effectively competing on the

global market for premium coffee.

KZ Noir expects that its premium-sharing model, designed to help farmers earn more from higher quality coffee production, will help farmers adopt new farming techniques and produce a consistent supply. The theory of change is based on the idea that KZ Noir-provided training, support services and specialized washing stations will attract

new farmers and increase the volume of coffee cherries per farmer. As a result, KZ Noir's program should provide more consistent disposable income for farmer households and lower volatility due to a more consistent harvest.

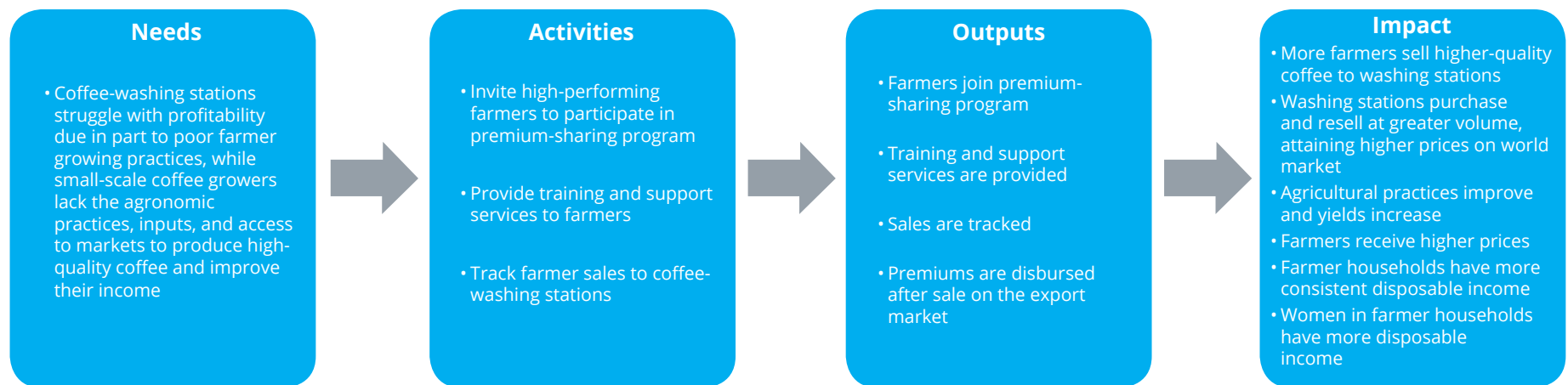


FIGURE 2. KZ NOIR THEORY OF CHANGE

Activity Monitoring

Acumen and business owners jointly agree on the metrics they will use to measure the social performance of the business, and on plans for collecting and reporting on the metrics. In many cases, the Lean Data Initiative aims to improve the data the business already collects or would like to collect. This may include using new data collection technologies, such as SMS surveys, call centers, and interactive voice response (IVR) systems.

SolarNow. SolarNow collects three main types of data from its customers to track important operational metrics:

1. Financial data. This includes the number of systems sold, credit payments and new loans

for upgrades, and maintenance and replacement rates. This data helps managers understand sales performance and the health of the credit facility.

2. Targeting data. Call-center agents administer the PPI to clients, which quickly estimates whether an individual lives near or below the poverty line.

3. Customer feedback. SolarNow administers a customer satisfaction survey via its call center. Managers review the results to assess customer satisfaction, identify any problems with the systems, and get ideas for new product offerings.

SolarNow has also used customer feedback data to implement operational changes and refine its the theory of change—for example, SolarNow learned that clients believe having more lighting improves their sense of security.

KZ Noir. KZ Noir’s premium sharing program required setting up a relatively complex monitoring system to track whether or not key elements in the theory of change are happening. KZ Noir needed data on farmers or farmer groups who sell their production to the washing stations, their farming practices, and total amounts of premium (and non-premium) coffee beans sold. Funding from the Lean Data Initiative

supported development of a mobile-based management information system, which will soon be launched, as well as a farmer registration survey designed in partnership with an independent impact evaluation firm.³ KZ Noir's system collects two types of data:

1. Administrative data. Washing station managers will use tablets to record the weight of crops purchased, the price paid, and the total amount paid to the farmer. Data collection will happen at the point of purchase and will be integrated into daily business operations, so it imposes little additional cost.

2. Targeting data. The farmer registration survey helps identify farmers suitable for inclusion in the premium-sharing program—those who produce high-quality coffee cherries in relatively large volumes. The targeting survey develops a farmer profile that includes farming practices, use of fertilizers, access to finance, and use of mobile phones, among

other indicators. This profile can be matched to KZ Noir sales data and to an endline survey. This survey will be administered at the washing stations and occur during seasonal farmer recruitment activities. It will also be used to conduct an impact evaluation which will identify a matched comparison group.

Measuring Impact

Portfolio Measures

Acumen has made important contributions to the definition of social impact from impact investing, as well as to developing practical ways of measuring it. Assessing the potential performance of investments across the investment pillars described above—Breadth, Depth, and Poverty Focus—allows the organization to systematically consider investments against a standard set of criteria and to build a portfolio that reflects organizational priorities.

However, reporting on each pillar as measures of impact across the investment portfolio is a bit more complicated. For example, the PPI is a valuable targeting tool and indicates how well investments fulfill Acumen's

Poverty Focus. But it doesn't indicate how the investments are improving the lives of their customers. Acumen attempts to get at this by considering Breadth and Depth, but these are difficult to measure without a counterfactual. And because depth metrics differ across investments, it is difficult to report a single aggregated measure of depth, or even a number of common measures. Similarly, using Breadth—captured by a usage multiplier—gives a rough estimate of how many people have interacted with a product or service, but does not say anything about how it actually affected their lives.

SolarNow. Using data from the Ugandan national census, SolarNow calculates its impact by multiplying the number of systems sold by five for households

and 300 for schools. In addition, the firm's impact reporting also includes the number of jobs created at its headquarters and franchises. This calculation yields an estimate of more than 3.4 million people who will benefit from SolarNow systems by 2018.

Impact measurement also includes continuing to collect data on client income. Over a two-month period in 2015, SolarNow call center agents collected PPI data from customers and found that their expanded client base included a higher percentage of poor households. Forty-nine percent of SolarNow clients were estimated to earn less than \$2.50 per day.

KZ Noir. KZ Noir worked with an external evaluator, IDinsight, to develop

a farmer survey and options for an impact evaluation of the company's premium-sharing program. Fearing that a randomized evaluation would impose an operational burden, KZ Noir decided on a statistical matching design. This method compares farmers who sell coffee to KZ Noir through the premium-sharing program with observably similar farmers who sell to KZ Noir but are not part of the program. To develop the sample, the company asked its regional managers to compile a list of farmers they would like to include in the premium-sharing program. Managers used their instincts and local knowledge to identify farmers who grew higher volumes and better quality coffee than the average KZ Noir supplier. The top 100-200 farmers on the list were invited to join the program, while the next 100-200 would serve as the comparison group. Farmers who are similar on a number of characteristics will be matched and differences in outcomes attributed to the premium sharing program.

KZ Noir has completed the farmer registration survey and will conduct an endline survey after the farming

season ends. Farmer registration data revealed useful information, such as the prevalence of mobile phones among supplier farmers (67 percent) and a high degree of financial inclusion (80 percent of households have a bank account). This and other survey data will help KZ Noir consider new ways of engaging with and paying farmers, such as bank transfers or mobile money. The registration survey also confirmed that KZ Noir was reaching the poor—nearly 60 percent of supplier farmers live on less than \$1.25 per day. Finally, the survey revealed that managers were fairly accurate in identifying the best farmers: farmers in the treatment group were on average wealthier, had more coffee trees, and produced better-quality coffee than those in the comparison group. However this will make interpreting the results from the impact evaluation difficult, because the treatment and comparison groups are different in important ways that are likely to affect how they would perform in the program.

This impact evaluation faces a couple of other challenges: the timing (before the program has finalized operational

procedures, such as how to transfer premiums to farmers), and less-than-ideal impact indicators (measuring only income from coffee sales). Acumen acknowledges the problems in the evaluation, but believes it will still provide valuable information for program decisions.

Goldilocks Recommendations

Acumen's work on the Lean Data Initiative and developing solid theories of change for its investments demonstrate a commitment to defining and measuring social impact as a core part of its operations. The due diligence process quantifies the expected social returns from each investment and identifies potential risks to the business model. Acumen also uses evidence throughout the process, from developing short literature reviews to linking the theory of change with supporting evidence. The Lean Data Initiative shows promise for helping Acumen and its investees operationalize the measurement plans developed during due diligence. It helps focus them on the most essential indicators from the theory of change and

offers new tools for data collection that reduce burden on individual firms.

While Acumen and its investees adhere to a number of the CART principles, we believe there is room for improvement, particularly in terms of credibility and responsibility.

Credible: Collect high quality data and accurately analyze the data.

Credible measurement of social impact is tricky. Before-and-after comparisons used to measure income changes often look at income from a limited set of activities and do not account for

total household income; leaving out the possibility that households may substitute some income-earning activities for others. Measuring employment may also lead investors to the wrong conclusion about net social impact. If employment goes up for a particular business introducing a new product, there could be corresponding loss of employment from another business who has lost clients and sales as a result of the product. Unless the new product allows for improvements to the overall labor market, the net social gain or loss is unclear. In general, we recommend that Acumen use resources for impact evaluation only when the results from the evaluation are likely to be unbiased. Minimizing the costs of evaluation is

important, but we argue that resources are not well used on evaluations of lower quality.

Where credible impact evaluations are feasible, we recommend focusing evaluation resources on fewer, higher quality evaluations in strategic sectors. For example, solar power is an important part of the Acumen investment portfolio, and the organization has used its experience with solar power firms to refine the theory of change for these types of programs. It may be the right time to make the investment in a rigorous impact evaluation of a solar power investment—either with SolarNow, in an expansion phase, or another investment in the future. This would help build the evidence of impact and inform decisions about this aspect of its portfolio.

Where credible results are unlikely, we recommend focusing data collection around how customers or producers interact with the business. In the case of KZ Noir, Acumen considers the main social impact to be increased farmer profits and increased household

consumption. While it may be possible to calculate coffee-sales income from monitoring or impact data, this number will likely overstate the increase in profit as it does not account for the expenses farmers may incur to improve their coffee production practices, nor does it consider the tradeoffs households make to do this. Additionally, increased income does not measure the full social impact, because it accounts only for the incomes of participating farmers, rather than measuring wider market impacts: increased sales for participating farmers could crowd out sales from nonparticipating farmers, increasing the income of the former at the expense of the latter. Given these limitations and the concerns around the evaluation design, we recommend that KZ Noir wait to conduct an impact evaluation, and instead, conduct deeper data collection on the production decisions of participating farmers. For example, KZ Noir could consider collecting data on farmer practices and investments to improve the quality of coffee beans, and compare these to income. This would help KZ Noir understand whether it is possible and likely for farmers to profit

from changing their production practices, and gain insights on the farmer supports that are needed.

Actionable: Commit to act on the data you collect.

In its review of these cases, Goldilocks also found that Acumen uses monitoring data well: it employs targeting data to monitor that investments are indeed reaching the poor; financial data to track business performance; feedback data to confirm that clients find value in the good or service, identify where theories of change hold, and where they need to be refined; and sales data to measure the breadth of an investment's reach. This is likely to produce actionable data for product design and targeting.

- SolarNow** collects actionable feedback data from its field staff and call centers, which provide information for monitoring program implementation and customer satisfaction. The company has learned a lot from these data, which have led to improvements in sales and

maintenance. Moreover, the PPI provides a solid assessment of the poverty levels of customers, and will allow the company to track whether it is meeting its mandate to focus on the poor and change its strategy if necessary.

- **KZ Noir's** farmer registration survey will allow the program to make operational decisions and provide more targeted support in the coming years, while monitoring data is critical for linking payments to farmers.

To build on the actionability of data collection efforts, we recommend that Acumen, SolarNow, and KZ Noir consider in advance what actions they would take should metrics not match expectations. For example, how would Solar Now and Acumen respond if future PPI surveys show that new clients are less poor than Acumen's target population? This was identified as an important risk in the due diligence stage, but was not accompanied by an action plan. Similarly, what actions would KZ Noir take if endline data from the impact evaluation show no impact on farmers? Having a clear plan for acting on these key indicators can improve

the likelihood that reported results will inform decision-making about these investments.

Responsible: Ensure the benefits of data collection outweigh the costs.

Acumen's Lean Data Initiative exemplifies responsible data collection through focused and useful data collection, and through the use of new technology to minimize costs. At the same time, investing in impact evaluations that do not produce a credible estimate of program impact are likely to be a waste of resources. Given the challenges of arriving at an unbiased estimate of KZ Noir's impact, we suggest that a better use of resources might have been to explore questions around farmer production decisions, as outlined above.

Transportable: Collect data that will generate knowledge for other programs.

Acumen pursues evaluation and analysis to answer specific questions that will inform future investments,

such as the factors that drive adoption of a new product. The organization has worked with researchers and impact evaluators to explore questions along these lines, and has identified lessons through multiple investments in a given sector that inform theories of change. These practices reflect a high degree of transportability. Goldilocks recommends that Acumen continue to collect high-quality targeting and monitoring data, which will generate understanding about where certain types of products, services, or business models are likely to work, and should inform future investment decisions. Additionally, Acumen should continue refining its theories of change to better identify the positive externalities of the investment.

Acumen Responds

We're thrilled to see leaders in the evaluation space put forward a thoughtful, pragmatic but also progressive set of principles by which organizations aiming to improve their measurement of social performance can judge themselves. We're similarly grateful to IPA for taking time to assess how Acumen's own work to gather data on our social performance stacks up against the CART principles. We welcome both the areas of commendation as well as constructive critique.

In particular we appreciate the recommendation that we think carefully about saving evaluations for fewer sectors especially where they align to plans for growth. Indeed this aligns with

our current plans. With a growing energy portfolio we recently acquired SolarAid's Off-Grid Energy Research and Impact Division⁴ and are undertaking a suite of formal evaluations on solar energy (with various partners including J-PAL, ETH Zurich, UC Berkeley, Stanford University, University of Edinburgh, and Humboldt State University). This work covers topics relevant to our investing strategy such as the impacts on indoor health pollution, children's education, and income poverty across differing solar products as well as investigation into the existence of an energy-ladder. Not only will this deliver greater *Credible* insights for Acumen but we also hope this will represent the largest body of knowledge on the impact of solar energy, thereby forming a public

good that will be *Transportable* to others in the sector.

With regards to continuing to develop the Goldilocks Principles we further encourage IPA to make the principles themselves as *Actionable* as possible. To do so it would be valuable to develop some kind of self-assessment tool, or assurance service to assess performance against the principles, especially over time. This would help us, and others, to track how we are making progress including where to focus attention and resources to make improvements, and potentially how to consider tradeoffs (e.g. in some instances *Credibility* may require time, that is not permitted by the need to be *Actionable*).

Lessons for Others

1. A solid theory of change is foundational for demonstrating how commercial enterprises can produce social impact.

Theories of change should identify the risks and assumptions of the approach and require thinking about tradeoffs or behavior changes individuals may have to make to participate in the program.

2. Theories of change also demand that organizations consider how creating new opportunities for one group may affect the welfare of others.

Do improvements for the targeted individuals come at the cost of those not in the program? Are markets for new products or services expanded, or do sales simply shift to certain individuals?

3. Impact evaluation should be done only when it can be done credibly and when an organization is committed to acting on the results.

When a credible impact evaluation is not possible, or not desired, resources may be better spent monitoring and analyzing operational issues.

Endnotes

1. More information about KZ Noir is available at: <http://acumen.org/investment/kznoir/>.
2. Acumen also offers a course which includes how to develop a Theory of Change, available at: <http://plusacumen.org/courses/social-impact-2/> and <https://www.youtube.com/watch?v=FIQIKLLD3rY>.
3. KZ Noir uses an Echo Mobile platform to collect and manage data on tablets. IDinsight trained KZ Noir field staff in proper survey and data verification techniques, such as not asking leading questions, piloting survey questions with farmers not in the sample, and conducting random back-checks of data quality. The staff struggled to find time for back-checks, which may compromise data quality to some degree.
4. Acumen Acquires SolarAids Off-Grid Energy Research and Impact Division. (2016). Available at: <http://www.marketwired.com/press-release/acumen-acquires-solaraids-off-grid-energy-research-and-impact-division-2090170.htm>.