



IMPACT REPORT 2019

GIF invests in entrepreneurs and innovators with the potential to improve the lives of millions of the world's poorest people.



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GIF is five years into its journey to address major development challenges by investing in innovations with the potential for transformative and sustainable social impact in developing countries globally. Open innovation is core to the GIF model – we’re interested in new approaches whether in the public or private sectors, so long as they benefit people living on \$5 per day or less, are grounded in evidence, and have a clear pathway to scale.

As Chair of the Board of the Global Innovation Fund (GIF), I am delighted to present our 2019 Impact Report, which reflects on what was a year of progress for GIF. We invested in exciting innovations and we strengthened our venture support function to enable us to support our investees to maximise their potential. We formed new funding partnerships and strengthened our multi-talented team of investment experts and development economists to position us for continued impact in the years to come.

I would like to welcome Darren Welch to the GIF Board. Darren brings expert knowledge, especially concerning development policy and programming, that will contribute significantly to the Board and GIF’s organisational goals.

I want to extend my sincere thanks to Stefan Dercon and Sarah Pearson, who stepped down as members of the GIF Board of Directors in 2019. Stefan made an outstanding contribution, first representing DFID and then as a specialist ‘Academic Director’ on the Board and lately as Chair of the Development Policy Committee before his term ended at the end of 2019. Sarah was nominated by Australia’s Department of Foreign Affairs and Trade to our Board and made substantial contributions to the success of the GIF with her specialist

innovation insights and the Asia-Pacific region. The GIF Board, team, and I wish them all the very best going forward.

Lastly, it gave me great pleasure to see founding GIF Board members Michael Kremer and Esther Duflo awarded the Nobel Sveriges Riksbank Prize in Economic Sciences this year for their work on evidence-based innovation for development impact. It is the highest recognition for their work on models like GIF for driving innovation. Michael and Esther had a profound influence on GIF and encouraged Board colleagues to fully embrace the principles of open innovation and rigorous evidence on which GIF was founded. Huge congratulations to Michael and Esther, who share the prize with Abhijit Banerjee.



Kanini Mutooni
Chair, Board of Directors



Reflecting on the past 12 months, I am proud of the work our team has done, and excited about the partnerships we have fostered which position us for another year of impact as we look towards 2020.

This year our portfolio added six new innovations tackling systemic challenges that touch many different aspects of people's lives such as plastics waste, gender-based violence, access to clean drinking water, and crime prevention. By 2030, we expect our portfolio of evidence-based grants and risk capital investments to benefit 89 million people each year.

2019 saw our first investments made through ADVANCE, our corporate partnership with Unilever, that will help unlock the private sector investment needed to scale up new business models and achieve impact at scale. We were also delighted to welcome Anglo American on board as a funder of ADVANCE, bringing the total capital committed to the fund to \$11 million. As part of ADVANCE, both Drinkwell, a social enterprise aiming to provide access to affordable and clean drinking water for millions of underserved urban customers, and Mr. Green Africa, a tech-enabled plastics recycling company disrupting the current informal plastic recycling sector in Kenya, are making headway towards achieving the Sustainable Development Goals. You can read more about both in this report.

This year we also made our first gender-transformative investment through the Innovating for Gender Equality sub-fund, our partnership with Global Affairs Canada. Enhancing the agency of women and girls

sits at the very heart of GIF's mission, and we are delighted to be supporting StrongMinds, a non-profit based in Uganda, to address depression among low-income African women by delivering facilitator-led and peer-led courses of group interpersonal therapy.

The announcement in October that the Nobel Sveriges Riksbank Prize in Economic Sciences had been awarded to Abhijit Banerjee, Esther Duflo, and Michael Kremer for their experimental approach to alleviating global poverty was a moment of great pride for me. With their focus on evidence generation as a means to innovation, not only accountability, Michael and Esther have had a profound influence on the GIF mission and its approach to impact investment. I would like to echo Kanini's message of congratulations to Abhijit, Esther, and Michael – your work over the past two decades has revolutionised the field of development economics and is an inspiration to all of us working to address global poverty. I am honored to be part of advancing your vision here at GIF.

Looking to the year ahead, our focus at GIF will be on growing our funding base and ensuring that we are delivering maximum value for our existing donors, as well as working closely with our investees and grantees to maximise their social impact. We will strengthen and optimise our operations to ensure that we have the strategic systems

and processes to be effective investors for impact, as well as to make sure that we are acting as a truly strategic partner to donors, investors, innovators and entrepreneurs, as well as the wider development finance community.

I would like to express my thanks to each of our donors, whose steadfast support and guidance make our past, present, and future achievements possible. We were delighted this year to announce a renewed five-year partnership with the Swedish International Development Cooperation Agency, whose support has been so critical to our successes since our founding. We also welcomed on board two new Netherlands-based funding partners, Sint Antonius Stichting and Dioraphte Foundation, and I look forward to us working closely together throughout 2020 and beyond to deliver transformative and lasting change to the lives of millions of the world's poorest people.



Alix Peterson Zwane PhD
Chief Executive Officer

Year in review

35 innovations delivering impact



89 million

people expected to benefit from GIF-backed innovations by 2030



\$3.4

additional capital crowded-in per \$1 of GIF for-profit investment



13

follow-on investments raised by for-profit portfolio companies



6%

expected annual improvement in livelihood of beneficiaries



240%

revenue growth across the for-profit portfolio since initial investment

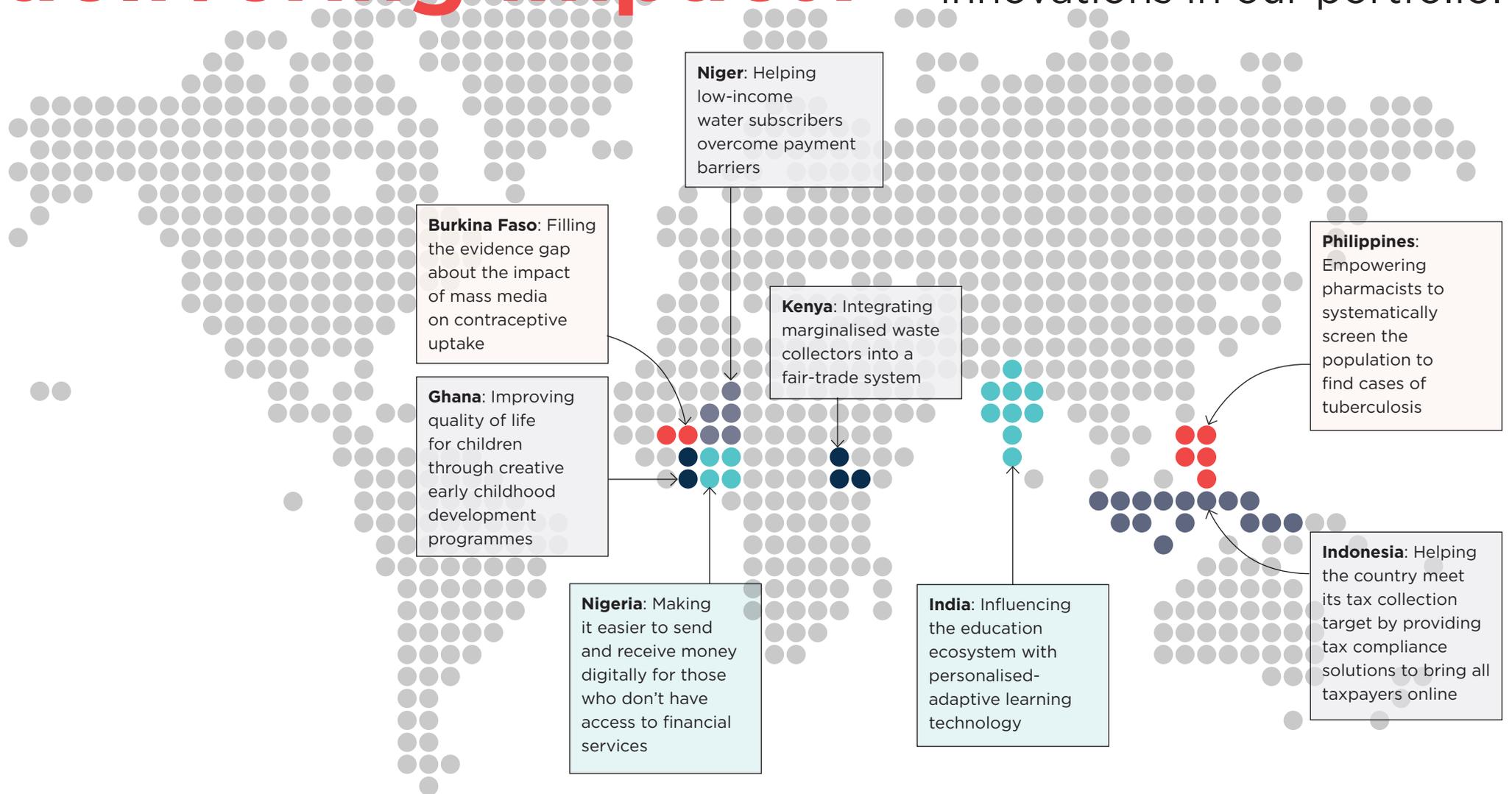


\$73.5 million

Invested/committed

Where are we delivering impact?

Here are just a few examples from the **35** innovations in our portfolio:



Our partnerships

ADVANCE with Unilever and Anglo American



Unlocking private sector investment to test and scale new business models to advance the UN Sustainable Development Goals.

Through ADVANCE we will create transformational change and unlock market opportunities in key focus areas:

1. Resilient and inclusive value chains: Extending last-mile distribution and taking action on waste.
2. Universal access to basic services: Securing affordable access to water, sanitation and hygiene (WASH); and energy.
3. Sustainable land use and production: Tackling climate change, deforestation, and food insecurity.
4. Economic inclusion and equal opportunities: Improving livelihoods and creating more opportunities for women and girls.

ADVANCE made its first investments in 2019 and added a new corporate partner – Anglo American – taking committed funds to a total of \$11 million.

Drinkwell is a social enterprise aiming to provide access to affordable and clean drinking water to millions of underserved urban customers for the first time. Through Water ATM-enabled systems, Drinkwell's solution has the potential to improve the lives of low-income urban slum dwellers in Bangladesh where there is a low rate of piped clean drinking water. A combination of patented purification technology, filtration, and pay-as-you-go cards underpin an easy-to-operate turnkey solution. Each system serves between 200–2,400 households, employs 1–3 people, and lasts for at least 10 years. With investment under ADVANCE, Drinkwell will work towards installing over 200 systems with the Dhaka Water Supply & Sewerage Authority, the utility in charge of water and sanitation in Bangladesh's capital.

Mr. Green Africa is a recycling business that integrates marginalised waste collectors into a fair-trade system. Mr. Green Africa recycles and sells ethically sourced materials with a traceable social and environmental impact. The business currently engages over 2,000 waste collectors in Kenya and sells over 2,000 metric tons of fairly-sourced recycled materials for local and international markets. The business seeks to formalise the plastics supply chain and create jobs, as well as relieve growing cities from plastic pollution. Our investment will allow Mr. Green Africa to expand and build on the aggregation model which enables it to scale the trade of recyclables while building a strong and reliable supplier network.

We continue to grow the ADVANCE portfolio and engage with mission-aligned corporations with a shared value agenda.



Gender equality



Global Affairs
Canada

Affaires mondiales
Canada

Global Affairs Canada is partnering with GIF to extend the GIF model to the space of gender transformative innovations that attack structural barriers to equality.

Breaking the cycle of depression: spotlight on StrongMinds

StrongMinds is a charity that treats depression in African women, particularly in Uganda and Zambia. The organisation has devised a unique, low-cost intervention based on Group Interpersonal Psychotherapy which makes their methodology scalable. Investment in StrongMinds from the gender equality sub-fund (\$600,000) will focus on determining how mental health impacts on gender outcomes. StrongMinds will use the grant to develop their internal expertise on the gender dimensions of their work and the organisation as a whole, and integrate measurement of gender outcomes to their monitoring and evaluation.

What are we learning?

Stakeholder engagement to support the development of strong and constructive relationships was high on our agenda during the first year of the gender equality sub-fund. A highlight has been working with potential grantees, and we have spent many hours learning about gender equality interventions from innovators; and shared lessons from our experience as investors.



We have gained new insight on achieving scale using the legal system of a potential grantee's home country. Equally, a grantee in the pipeline benefited from two days of GIF support on metrics and measurement, which was offered as part of a visit to the innovation headquarters. One-to-one conversations to involve potential grantees in the grant process, and building the capacity of potential grantees, were also key elements of the stakeholder engagement process.

Engagement with peers in the field of development finance as well as experts in gender equality has also featured in our work. We were pleased to identify key

sources and stakeholders with relevant information, networks and skills to build relationships. Some of these were new to GIF while others are long-standing informal partners, including: J-PAL, World Bank Gender Lab, the Global Fund for Women, and Every Woman Treaty.

Our progress is driven by a dedicated Gender Working Group, featuring representatives from teams across GIF, as well as gender experts, working collaboratively to align Canada's feminist development agenda with GIF's focus on innovation to increase the agency of women and girls.

Developments in Practical Impact

- our approach to measuring success

GIF seeks to maximise the social impact of its investments in innovations by using disciplined methods to:

- Forecast the impact of prospective investments and use this information to guide investment decisions.
- Track project performance and impact during implementation, using real time information to adapt and adjust as necessary.
- Evaluate investments after their completion to better understand how investments fared (and why), using this evidence to guide future GIF decisions; and inform decisions made by other development partners.

Practical Impact provides a structured way of forecasting the long-term impacts of early-stage innovations. During project selection and diligence, GIF computes Practical Impact as:

Practical Impact = low-income people impacted at year 10 x depth of impact x probability of success



Breadth of impact

The number of low-income people who will benefit at year 10

x



Depth of impact

Benefit per person relative to annual income

x



Probability of success

The likelihood that the innovation will be successful in 10 years



GIF tackles the challenges of assessing potential impact across a diverse set of investments – from mental health, to plastics recycling, to drinking water, to logistics.

Our Practical Impact methodology is audacious in trying to forecast the long-term impact of our work. Its practicality resides in accepting that the forecasts are uncertain, in aiming for order-of-magnitude estimates rather than unattainable precision, in making conservative judgements, and in updating as new evidence emerges. We look at all plausible channels of impact and focus on those that are potentially the largest and most salient. I am delighted to share some examples from 2019 of Practical Impact at work:

Drinkwell's Water ATMs in Bangladesh dispense clean, filtered water to slum dwellers. In doing so, Drinkwell attacks a major risk factor for diarrhoea, which

accounts for 3.4% of deaths in the country. However, the link between clean water at source and reduced diarrhoea is not as clear as the water. That is because the clean water can get contaminated if collected in a dirty vessel, or while it is being stored at home. But a review of the evidence suggests that clean water at source does indeed have a large causal benefit on improving health, even after allowing for the possibility of recontamination. In the Practical Impact framework, a very high weight attaches to each life saved: the equivalent of 50 times annual per capita consumption among our beneficiaries. So, while Drinkwell confers other benefits, including some cost savings to water buyers, diarrhoea reduction drives our impact projection.

GIF's support for StrongMinds addresses the high incidence of depression and the burden of the illness – especially on women. StrongMinds has developed a low-cost, replicable therapy model for depression, including through the use of volunteer peer facilitators. Rigorous prior research in rural Uganda has shown that this therapeutic approach can be highly effective in reducing the rate of major depression. The Practical Impact framework weighting for depression is based on the DALY (disability adjusted life year) metric used in the Global Burden of Disease System. The burden

of an illness in DALYs is reckoned as its severity multiplied by the number of years lived with it. Depression is considered one of the most severe illnesses. Practical Impact weights each DALY averted as the equivalent of five times per capita consumption. This approach highlights the impact of combating mental illness in the global south, which has been relatively neglected in health financing. Our impact estimates are likely to be further boosted as StrongMinds develops additional evidence on the family-wide benefits of mothers improved mental health.

GIF is enhancing its methodology to meet the challenges of forthcoming investments. Over the coming year we plan to better measure the benefits of empowering women and girls, and to explore techniques to assess our contributions to poverty reduction by stimulating overall economic growth.

Ken Chomitz PhD
Chief Analytics Officer



Our portfolio

Treating depression in African women, empowering them to lead more healthy, productive, and satisfying lives.



Investment summary

Size	\$1,600,000
Type	Grant
Stage	Test and transition
Sector	Mental Health and Gender
Countries	Uganda, Zambia

Why did GIF invest?

StrongMinds has been addressing depression among low-income African women by delivering facilitator and peer-led 12-week courses of Group Interpersonal Therapy. StrongMinds' model is evidence-based, scalable, and low-intensity operationally. The innovation is designed to treat moderately depressed women in Africa with less than \$2 per day to spend on their families.

Mental health has traditionally been a sector overlooked for funding and needs models that are widely applicable and have the potential to be cost effective and impactful. GIF was excited to invest in StrongMinds to address the lack of accessible delivery models on mental health interventions focused on women and increase the limited funding (less than \$130m a year) for mental health issues around the world.

In addition to funding, GIF aims to play an important role in helping StrongMinds build the right model for scale and help StrongMinds become a gender transformative organisation.

By end of 2018, the facilitator-led model had reached 38,000 participants and the peer-led model reached 6,000 participants, with improvement rates of 75% and 65% respectively. Now StrongMinds aims to reach a larger number of women faster through partnerships. StrongMinds plans to scale by working closely with non-profits, focused on women and girls. In time, they plan to scale through governments.

What is StrongMinds using GIF investment for?

StrongMinds is using GIF investment to advocate for mental health engagement in Africa and strengthen their value proposition by demonstrating success to governments and other partners.

StrongMinds has developed a toolkit and piloted this with some partners. GIF funding will support StrongMinds to test and refine the toolkit at a reasonable scale to develop a robust, scalable model, develop Monitoring & Evaluation support modules, and, through their deployment, build organisational expertise on partnerships.

GIF is supporting StrongMinds to integrate gender into their overall organisational strategy, to integrate gender transformation to their programming by incorporating it to their operations and staffing; and to measure gender-related outcomes of their work.



**NO MEANS NO
WORLDWIDE**
Ending the Global Rape Epidemic

A global rape prevention organisation whose aim is to end sexual violence against women and children.



Investment summary

Size \$225,000
Type Grant
Stage Pilot
Sector Gender equality
Countries Uganda and Namibia

Why did GIF invest?

An estimated 35% of women worldwide experience sexual violence in their lifetime: the team at No Means No Worldwide are seeking to effect change through skills-based training. Their self-defence curriculum, called IMpower, is aimed at boys and girls aged 10-20 and uses role play to teach mental, verbal and physical self-defence skills. Its aim is to end the cycle of violence by teaching boys to respect women and girls, and to empower girls to stand up for their rights.

Prevention of sexual violence is underfunded (typically funding goes to response) and evidence-backed interventions in this space are also rare. NMNW showed potential for major to transformational impact on individuals, based on preventing incidences of sexual assault.

NMNW has successfully completed the launch of IMpower in Uganda, and in collaboration with three local Implementing Partner organisations has graduated 22,945 girls in IMpower training.

What is NMNW using GIF investment for?

NMNW successfully completed the launch of IMpower in central and eastern Uganda.

Piloting a 'train-the-trainer' partnership model.

Building organisational capacity.

What are we learning?

Robust quality assurance systems, including monitoring to ensure high fidelity to the programme, are necessary to support a scale-through-partnership model.

Being strategic and proactive about partner selection and early engagement maximises synergies from partnerships with local organisations.

Meet the innovator



Lee Paiva, Founder and CEO

“In 2006, I found myself walking through Korogocho slum in Nairobi. I had a translator with me and as we walked, she began whispering about the people and places we passed: “this girl was raped at knife point, this child is a rape baby, this girl is HIV-positive from rape by her father, this is where a grandmother died after being gang-raped, this woman’s baby was raped...” I was horrified. It sounded as if every female there had been sexually assaulted. The translator shrugged as if to say, “it is what it is.”

“Well, I thought... it doesn’t have to stay that way. A decade earlier I had taken an empowerment self-defence class in the USA and I knew those skills would save lives if I could somehow successfully adapt them to work in slum environments. I spent several years designing self-defence programming localised for Nairobi slums and gathering data to assess the impact of what I was doing. Recognising the positive effect my work was having on rape prevention, I began working closely with educational and academic experts across the globe to create IMpower, the No Means No Worldwide system of violence prevention, intervention and recovery. The aim was to stop the cycle of violence by educating girls and boys to create gender equity for community-wide, generational change.

“By 2015, after several years of testing in Kenya and numerous peer reviewed publications proving the impact of our work on sexual assault prevention, NMNW was ready to achieve transformative scale in preventing gender-based violence. I’m delighted to say that NMNW is now a best practice global training academy and technical assistance provider. Our approach is to provide comprehensive support to existing implementing partner organisations, so that partners can deliver and evaluate high quality rape prevention programming around the world.”



Development Media International (DMI). Changing behaviours. Saving lives.



Investment summary

Size	\$2,000,000
Type	Grant
Stage	Test and transition
Sector	Health and family planning
Country	Burkina Faso

Why did GIF invest?

Many women in the Sahel region of Africa face informational and social barriers that prevent the uptake of modern contraception.

DMI's innovation is the use of advertising techniques and mass media to encourage the use of modern contraceptives in Burkina Faso. The behaviour change campaign focused on overcoming the cultural barriers and social norms that prevent the uptake of modern contraceptives.

An RCT, carried out in partnership with IPA and J-PAL substantially contributed to the evidence base regarding behavioural health campaigns. Results showed that the campaign, which ran from June 2016 to December 2018, reached an estimated two million people with radio spots and interactive programmes. The RCT found that the campaign had a statistically significant impact on modern contraceptive prevalence rates (mCPR) with an increase in mCPR 17.4% higher in the intervention zones compared to the control zones. In the intervention zones, mCPR increased by 5.3 percentage points.

This strong evidence of impact enabled DMI to secure funding to take this intervention to national scale in Burkina Faso in 2019, with a further extension of the national campaign planned and funded for 2020-22.

What is DMI using GIF investment for?

To produce radio content that promotes the use of modern contraceptives, for broadcast on local radio stations.

The campaign consisted of 60-second radio spots that were broadcast 10 times a day for a period of 30 months; and two-hour interactive programmes that were broadcast three times per week.

What are we learning?

We are learning that the innovation has the potential to be a cost-effective way to promote modern contraceptive usage and to work across multiple geographies. An economic analysis of the trial found the intervention to be highly cost-effective. If scaled up nationally, DMI estimate that the intervention would cost \$13 per additional woman using modern contraception.



Providing smallholder farmers on-demand access to modern farming machinery and services, improving output and boosting earnings.



Investment summary

Size	\$7,400,000
Type	Equity
Stage	Test and Transition
Sector	Agriculture
Country	India

Why did GIF invest?

Over 50% of the Indian population is dependent on the agriculture sector for its livelihood. Low productivity among smallholder farmers contributes to millions of Indian farmers living in poverty, with rice and wheat yields within India trailing global yields by 70%. A significant barrier to inclusive growth and increased productivity is the lack of access to mechanised farming equipment, which is too expensive for most smallholder farmers. As a result, millions of farmers are left relying on an informal and inefficient market of service providers that is both unreliable and unable to address large demand.

GIF invested in EM3 due to the high potential for social return by providing millions of smallholder farmers to access mechanisation as a service. Through EM3's platform, smallholder farmers can access end-to-end farming services that include land preparation, sowing and harvesting, all billed per acre or per hour. This service leads to significant increases in incomes for smallholder farmers.

EM3 in numbers

Equipment on platform:	624
Acres covered:	200,542
Unique farmers served:	21,422

EM3 has signed a contract with Indian Oil, one of India's largest companies, allowing EM3 to leverage a vast distribution network to support the expansion of EM3's services to more areas and access more smallholder farmers. EM3 has also reached agreements to expand into the sugarcane business, a key cash crop for many smallholder farmers; and signed debt agreements which will allow EM3 to provide even more essential farming equipment on their platform, such as tractors and harvesters.

EM3's business model is well-adapted to the local agriculture landscape, building on top of existing relationships with village agents, and benefiting each actor in the value chain. EM3's platform is transforming an informal and inefficient market into a transparent and efficient market that removes a key barrier to increased farmer productivity and economic growth.

The company has significant scale potential through organic growth, and institutional and government partnership.

What is EM3 using GIF investment for?

GIF's investment has enabled EM3 to fund their growth strategy, under which EM3 aims to serve over one million smallholder farmer customers in a financially sustainable manner to allow the business to become commercially viable and provide a long-term reliable service to their small holder farmer customers. In order to achieve this, EM3 is expanding their team across their regional sales centres, establishing regional sales offices, developing their back-end technology, and acquiring farming equipment to meet growing demand from smallholder farmers.

What are we learning?

GIF's patient capital approach has proved complementary to EM3's growth and long-term strategy. In order to cater to different geographical and agriculture crop markets across the regions where they operate, EM3 found a specific business model including local partnerships for each market is necessary to scale. For example, EM3 works on a franchise model in Rajasthan, and has found bank financing for franchisees critical for franchisee traction.





Providing cost-effective end-to-end services to smallholder farmers.



Investment summary

Size	\$2,500,000
Type	Debt and convertible note
Stage	Test and transition
Sector	Agriculture
Country	Nigeria

Why did GIF invest?

The health of the agricultural sector in Nigeria is critical to the country's economic wellbeing, accounting for 22% of GDP and employing an estimated 58% of the country's active work force.

The sector is predominantly made up of smallholder farmers, who produce over 70% of the nation's food and own over 80% of all agrarian land – however, in the face of challenges such as low economies of scale, lack of finance for key inputs, poor knowledge of best farming practices, low yields, limited storage capacity and restricted access to formal markets, many smallholders continue to live on less than \$2 a day.

Babban Gona provides a comprehensive agriculture franchise model that seeks to sustainably improve the lives of smallholder farmers through the provision of end-to-end farming services.

Babban Gona operates in rural northern Nigeria, where it provides farmers with all they need to thrive, be it knowledge, harvesting services, or

storage. This enables smallholder farmers to increase yields, lower their production costs, and gain a higher price for their crop.

Through Babban Gona's model, each farmer receives a net income of around \$547, which is two-and-a-half times greater than the average smallholder. Over the last four years the model has dramatically increased its reach and currently supports approximately 19,984 smallholder farmers.

GIF provided an innovative \$2.5m subordinated debt investment that will enable Babban Gona to sustainably improve net incomes for more farmers. The investment includes a financial incentive to create more impact for farmers. GIF's subordinated position also plays an important role in helping Babban Gona to attract larger amounts of investment.

What is Babban Gona using GIF investment for?

Babban Gona is using GIF investment to improve the sustainability of their business model through introducing new products and services and grow to over 100,000 smallholder members, to attract approximately \$30 million of additional debt to finance expansion plans, and to collect rigorous evidence of impact by conducting a randomised controlled trial.

What are we learning?

We are learning how technology can be used to lower the cost of extension officers providing services to farmers, and how volatility of commodity prices can be managed to protect smallholder income.



A non-profit social enterprise that supplies financing and training to help smallholders grow their way out of hunger and build lasting pathways to prosperity.



Investment summary

Size	\$15,000,000
Type	Grant
Stage	Scale
Sector	Agriculture
Countries	Rwanda, Kenya, Uganda, Burundi, Tanzania and Malawi

Why did GIF invest?

As a group, smallholder farmers are among the most disadvantaged and vulnerable in the developing world. One Acre Fund has developed an innovative system for testing, evaluating and scaling critical farm technologies and practices that increase the productivity and income of rural smallholder farmers.

One Acre Fund's extensive farmer network and growth meant it was in a good position to start driving broader system adoption by partnering with governments and private sector actors, such as seed and fertiliser companies. GIF saw the investment as an opportunity to accelerate the adoption of new farming innovations by millions of target beneficiaries, leading to a potentially large social return.

In 2019, One Acre Fund reached one million farm families, driven by steady expansion in Rwanda and strong farmer demand in Burundi.

Farmers in Rwanda can now enrol in One Acre Fund's programme from any mobile device and One Acre Fund is trialling an interactive SMS-based platform that allows farmers to interact directly with One Acre Fund systems via any mobile device.

This solution could help reach farmers more directly, provide a faster service to clients, and support field staff to be more efficient. For field staff, enrolling clients via SMS significantly provides real-time data to One Acre Fund's headquarters. For the farmer, the platform enables instant access to their loan balance and product information, while offering the ability to purchase additional products throughout the year.

What is One Acre Fund using GIF investment for?

One Acre Fund is using GIF investment to improve its technologies and approaches by scaling through its own system and partners, to drive reductions in the donor subsidy per farmer to create impact, and to encourage other actors operating in this space to adopt its innovations.

What are we learning?

We are learning that success for a programme of this nature may be more likely if certain pre-conditions are in place, such as a strong partnership with government and license to operate, and a strong commitment from government to support smallholder agriculture.

CENTER ON FOOD SECURITY AND THE ENVIRONMENT – STANFORD

Generating solutions to the persistent problems of global hunger and environmental damage from agricultural practices worldwide.



Investment summary

Size	\$460,000
Type	Grant
Stage	Pilot
Sector	Agriculture and livelihoods
Country	Kenya, Mali, Ghana, Uganda, Tanzania and Malawi

Why did GIF invest?

Africa's 50 million smallholder farmers have crop yields far beneath what they could be achieving. Attempts to address this gap have been held back by a lack of data, stemming from the difficulty and cost of traditional survey methods for measuring crop yields and plot areas of small farms.

Researchers at Stanford University's Center on Food Security and the Environment have developed methods for using satellite images to measure farm productivity for very small plots and in near real-time. If validated and automated, these methods could be much cheaper, faster, and easier to deploy than existing methods.

Tests have shown that the remote sensing methods can perform well against traditional ground-based measures. The Stanford Center on Food Security and the Environment's innovation is a low-cost,

Grantees from the Center on Food Security and the Environment – Stanford have published peer-reviewed papers showing the efficacy of their remote sensing approach to measuring smallholder crop yield: their ability to create a 'wall-to-wall' map of maize yield in Kenya and Tanzania at ten metre resolution; and that their remote sensing measurement of yield is superior to farmers' self-reports or to standard sub-plot measures of yield.

real-time system that uses high-resolution and high-frequency satellite imagery to measure field scale and predict smallholder yields.

What is the Centre on Food Security and the Environment using GIF investment for?

The researchers are testing the reliability and accuracy of their methods against ground productivity measures and demonstrating proof of concept applications of the methods. This includes assessing the costs and benefits of using commercial ultra-high resolution satellite imagery versus slightly lower-resolution but publicly available data. Crops covered are maize, sorghum, wheat, and rice.



Moving smallholder farmers out of poverty.



Investment summary

Size	\$225,000
Type	Grant
Stage	Pilot
Sector	Agriculture
Countries	Mali and Senegal

Why did GIF invest?

Smallholder farmers make up the majority of the 2 billion people living on less than \$2 a day worldwide. Their estimated annual financing need is \$450 billion. Only 3% of that need is currently met. myAgro is supporting farmers finance themselves.

In the areas of Mali and Senegal where myAgro works, the average household consists of over nine people and is food insecure for three months of the year. They traditionally harvest less than a ton of food per hectare, when they could produce three to four times that with access to inputs and knowledge.

myAgro has developed the first mobile layaway scheme for smallholder farmers in the world.

Their scratch card system allows smallholder farmers to save and finance their activities by purchasing farm inputs such as seeds, fertiliser, and training - using their mobile phones.

60% of myAgro clients are women, and results have shown that myAgro has supported farmers to grow 100% more food and double their net farming income.

What is myAgro using GIF's investment for?

myAgro used GIF investment to carry out a one-season pilot to test whether the unit economics of its model can be improved by leveraging existing Village Savings and Loan Associations (VSLA) infrastructure. Evidence was found around three drivers of improved cost-effectiveness: more farmers per field agent, exceeding targets in farmer-collected payments, and lower costs per farmer.

myAgro is actively pursuing the scale-up of the VSLA model through both direct provision and provision through large NGO partners who already manage VSLA networks.



Connecting pharmacies. Transforming global health.



Investment summary

Size	\$3,000,000
Type	Equity
Stage	Test and transition
Sector	Health
Countries	Philippines, Malaysia, Vietnam, Thailand, Indonesia and Cambodia

Why did GIF invest?

iPharmacies are often the first point of access to modern medical advice and treatment for many people in low and middle-income countries. Despite their critical role, pharmacies are often neglected by public health and development communities. mClinica's trio of pharmacy tech platforms – SwipeRx, SnapRx, and Connect – work to bridge this gap and improve health outcomes for patients across South East Asia, especially among rural and low-income populations. mClinica's combined technologies represent a digital network of over 150,000 pharmacists and 40,000 pharmacies.

In a market saturated with independent pharmacies, reaching pharmacies and tracking data on patients and medicines is challenging. mClinica's platforms can help ensure policy and spending decisions by healthcare sectors are guided in the right direction with health data that has never been available before.

mClinica's mobile solutions connect pharmacies by digitising patient programmes, building

mClinica received a \$1 million boost from GIF in 2019, paving the way for the company to grow its increasing pharmacy footprint across Southeast Asia. The latest investment round will enable mClinica to deepen its services through SwipeRx.

The World Government Summit awarded mClinica with a global award for SnapRx in 2019. The platform beat over 4,000 applications from more than 80 countries.

capacity in the pharmacy workforce, improving the pharmaceutical supply chain, and generating data.

SwipeRx, Southeast Asia's largest social network of pharmacies, connects over 150,000 pharmacists, acting as a one-stop shop to communicate, take CPD modules, search for jobs, and access drug information.

SnapRx is an AI-powered health information system built on prescription data. Data generated by SnapRx is used to monitor medicine use at both public and private sector pharmacies and inform healthcare policy and programmes.

Connect, a data-driven digital patient assistance programme, enables pharmaceutical companies to run compliant digital patient assistance programmes to improve patient access, affordability and adherence.

SwipeRx is the largest social network of pharmacies and pharmacy professionals in Southeast Asia, with

Meet the innovator

more than 140,000 pharmacy professionals using the platform as a one-stop shop for their daily practice. Users benefit from an array of features, including a news feed with industry updates from leading public health institutions; forums; continuing professional education modules and drug information directories. SwipeRx has grown rapidly since its launch in 2018, with 1 in 2 of the pharmacists in the Philippines signing on to the platform, 1 in 3 in Indonesia and 1 in 3 in Vietnam.

What is mClinica using GIF investment for?

- Improving health outcomes for patients across South East Asia, especially among rural and low-income populations, by reducing healthcare expenditures, increasing adherence and compliance.
- Supporting evidence-based policy making through the collection of data and insights from the pharmacy channel.
- Expanding throughout Southeast Asia, including entering new markets in other lower-middle income countries.

What are we learning?

We are learning how inefficiencies in pharmacy supply chains can be improved through a transparent, digital marketplace, and how mobile technology can provide highly-targeted communication channels for public health messaging.

The World Government Summit awarded mClinica with a global award for SnapRx in 2019. The platform beat over 4,000 applications from more than 80 countries.

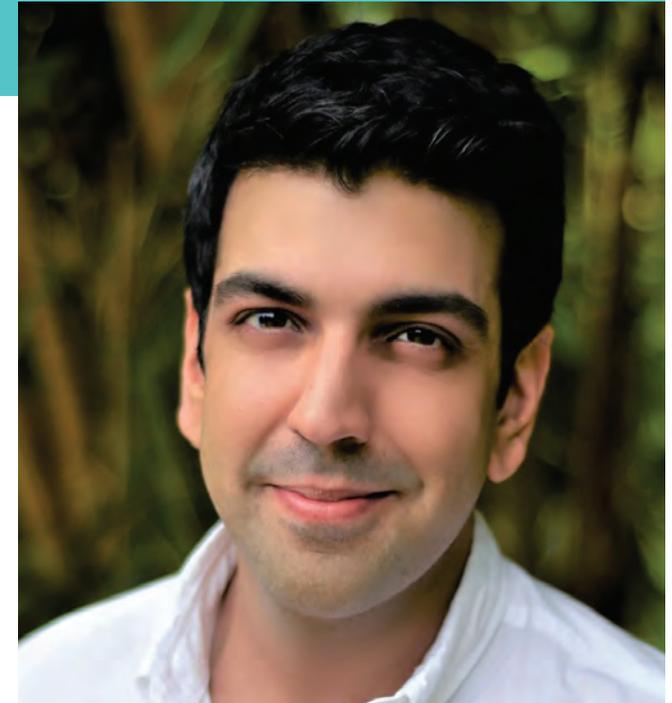
Farouk Meralli, Founder and Chief Executive Officer

“As I reflect on 2019 I am especially proud of the strides mClinica has made towards helping in the fight against tuberculosis (TB).

“The Philippines has one of the highest prevalence rates of TB in Southeast Asia – more than 40% of patients with TB self-medicate at pharmacies and remain untreated. We saw this as an incredible opportunity to find ‘missing’ cases of TB.

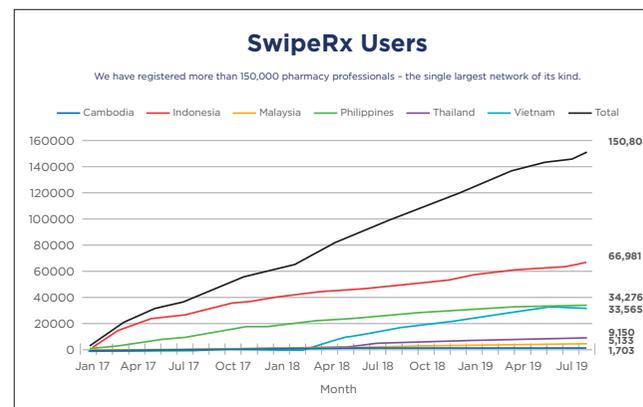
“In September 2019 we were excited to launch an eReferral feature within our SwipeRx platform, that enables pharmacy professionals to improve their TB knowledge, refer self-medicating individuals who may have TB to nearby health facilities, and view an online dashboard that tracks all pharmacy referrals from the pharmacy to a health facility.

“As part of the SwipeRx eReferral training pharmacists receive from mClinica, we also cover how to identify individuals who may have TB based on symptoms.



“We heard from one of the Philippines-based community pharmacists trained in SwipeRx eReferral that they noticed a customer who repeatedly came to the pharmacy to buy cough medicine for her husband. After the pharmacist identified the case as potential TB, because of the digital training given, the patient was referred to a health facility through the SwipeRx eReferral platform. The health facility confirmed the customer’s husband to be TB positive and he is now under treatment. This action not only saved the life of an individual but had vast implications for his family and his community due to the infectious nature of TB.

“The mClinica team is proud that the technology we have built can contribute to achieve the Philippines’ ultimate goal to be TB free, a goal where pharmacy professionals’ help is very much needed.”





A digital platform that uses data visualisation and machine-learning predictions to help police forces decide how best to deploy officers.

Investment summary

Size	\$1,400,000
Type	Grant
Stage	Test and transition
Sector	Public security
Country	South Africa

Why did GIF invest?

The high incidence of crime in developing country cities disproportionately affects poor and vulnerable people. CrimeRadar, a crime forecasting tool conceived by the Igarapé Institute, aims to help civilians improve decision-making and personal security, as well as add value to police services by identifying potential crime ‘hot spots’ in close to real time.

The application is able to assess the risk of crime in different parts of a city by finding patterns in incidents, locations, and time, using advanced algorithms. It does this by processing GPS coordinates as well as a specific time and date. The prediction algorithm can be applied to other cities as long as the crime data is available for them, hence Crime Radar is, by design, transferable to other cities (subject to data consistency and translation where needed).

Other applications that predict crime activity tend to be restricted to police departments and not made available to the public. They are often restricted to a small number of users and the underlying methods

The Crime Radar prototype was launched in Rio de Janeiro in 2016 and drew on five years of crime data – 14 million crimes – collected by the Rio de Janeiro state police and shared by the Institute for Public Security.

are not transparent. By contrast, CrimeRadar is a step towards empowering the public to get involved in crime prevention; and part of a wider movement to make data more open and accessible.

GIF investment in CrimeRadar has the potential to improve the overall efficiency and effectiveness of law enforcement deployments to address the endemic problem of crime in developing country cities.

Innovations in public security and on state capacity improvements receive limited philanthropic or other types of investments, so GIF additionality is high.

What is CrimeRadar using GIF investment for?

CrimeRadar is using GIF investment to create an initial version of the CrimeRadar software that can be tested and refined in Cape Town, which then can be adopted by police forces in other cities. Piloting of the CrimeRadar software will take place in 2020. A key part of the pilot is assessing and mitigating any potential negative social impacts of the algorithms.



A leading provider of data and technology solutions that improve public transport across Africa, Southeast Asia, India, and Latin America.



Investment summary

Size	\$1,100,000
Type	Equity
Stage	Test and transition
Sector	Transport
Countries	Headquarters in UK and South Africa
Regions	Africa, Latin America, India and Southeast Asia

Why did GIF invest?

Informal and often unreliable mass transit is a significant problem that disproportionately affects poor people. GIF first invested in WhereIsMyTransport in 2017 and reinvested in WhereIsMyTransport through their Series A equity raise in 2019 to support their expansion to new markets outside of South Africa. GIF was excited to continue to work with WhereIsMyTransport to make mass transportation in emerging cities more accessible and more efficient.

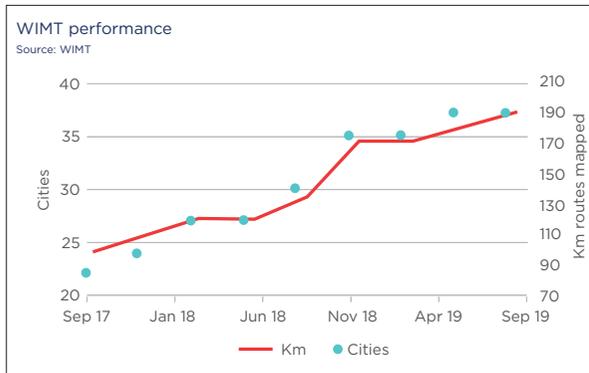
As a transport technology company, WhereIsMyTransport's data platform critically focuses on mapping informal transport routes that allow for the integration of formal and informal transit data. This benefits governments by allowing for more efficient planning and regulation of mass transit systems and for the poor, who are the primary users of informal transport, by making mass transportation more accessible, efficient and safe.

WhereIsMyTransport has created an open platform for bringing together formal and informal transport data. This enables apps to provide real-time transport information, and also allows for more efficient planning and regulation of transport systems by local governments.

Over the past three years, due to the continuous improvement of WhereIsMyTransport's data production playbook - which includes people, processes, tools and technologies - the company now successfully maps cities with public transport networks 6.5 x the size of the first cities it first mapped, and manages 10 x the number of data collectors.

WhereIsMyTransport offer a competitive advantage through their data-driven approach, reducing the time and cost of mapping informal transport, which has also allowed them to increase the scope of their pipeline by mapping more cities in regions beyond their first target market, in Latin America and Asia.

WhereIsMyTransport has continued to prove its commercial validation by signing contracts to map the informal transport network of megacities for municipal commercial partners, which will improve consumer journey planning and urban planning.



Since GIF's original investment in 2017, WhereIsMyTransport has mapped 191km through 37 cities.

What is WhereIsMyTransport using GIF investment for?

GIF's investment is supporting WhereIsMyTransport to expand their team and recruit more software developers and tech experts, as WhereIsMyTransport develops new mapping and data analytics products.

In addition to their data platform, WhereIsMyTransport have made progress with their analytics tools which are key to helping drive greater impact in urban planning specifically geared toward improving access to mobility. The development of WhereIsMyTransport's analytics tools enables them to ask the right questions of the data collected and distil the key insights that will ultimately improve the informal transport experience for low-income users.

What are we learning?

GIF's patient capital approach aligns well with WhereIsMyTransport's long sales cycle which is typical when engaging with government entities. WhereIsMyTransport's services are very attractive to municipal and local government entities,



as WhereIsMyTransport is the only transport technology company to collect meaningful data on informal transport routes that can be readily analysed to inform a city's long-term transport and infrastructure strategy.

GIF actively supports beyond financial investment. This year GIF has worked with WhereIsMyTransport to understand areas where GIF can add meaningful

non-financial value. GIF's venture support has allowed for WhereIsMyTransport to focus on building its human capital, to identify and bring on new talent, while strengthening its governance and diversity.



Leverage the twin levers of cutting-edge educational research and a technology-based solutions approach to revolutionise how children engaged in the K-12 education space learn.



Investment summary

Size	\$2,307,658
Type	Grant
Stage	Test and transition
Sector	Education
Country	India

Why did GIF invest?

There is a 'learning crisis' in low-income countries. More children than ever are enrolling and attending school, but for too many children turning up at school does not translate to meaningful learning. In rural India, primary enrolment rates exceed 95% but more than half of grade-five children are unable to read at the second-grade level; and nearly three-quarters of students in grade three could not solve a two-digit subtraction such as $46 - 17$.

Educational Initiatives innovation is a personalised adaptative learning software called Mindspark. Mindspark draws on a database of more than 45,000 test questions to finely benchmark the learning level of each student and dynamically customize the material being delivered to match the level and rate of progress made by each individual student. Mindspark is widely used by private school student and a randomised control trail found large and cost-effective gains in test scores in maths and Hindi.

The Educational Initiatives team has published an online repository, the Science of Learning Library, containing the first version of a taxonomy of skills and misconceptions gleaned from Mindspark, as well as learning and remediation resources for teachers. Over time, the Science of Learning Library will expand further as a source of information on foundational concepts and skills that enable student learning, the most common procedural and conceptual errors made by children, the incidence of errors among different groups of children, and the most effective remediation content.

What is Educational Initiatives using GIF investment for?

Educational Initiatives is using GIF investment to explore how Mindspark can be effectively used in government schools. GIF funding is enabling the roll-out of Mindspark in 40 government schools in Rajasthan and aims to improve the learning outcomes of 10,000 children. In addition, GIF funding is enabling Educational Initiative to develop a number of public goods. A science of learning library is under development. It will include materials on foundational concepts in key subjects, the common misconceptions learners make, and remedial plans which teachers can use to help children to understand foundation concepts and correct misconceptions. Educational Initiatives is also producing a playbook on how to implement technology programmes in government schools of India.

What are we learning?

Preliminary results of an ongoing randomised controlled trial in four districts in Rajasthan show that cumulatively there is positive impact on maths and language mean treatment effects. These results suggest that well-designed, technology-aided instruction programmes can sharply improve productivity in delivering education in a relatively short amount of time. The solution appears to be cost-effective when compared with government spending on business-as-usual schooling. Further results are expected in 2020.



Meet the innovator

Sridhar Rajagopalan, Co-Founder & Chief Learning Officer, Educational Initiatives Pvt Ltd

“After working with IBM for 2.5 years, I co-founded and ran Eklavya School in Gujarat in 1996.

“It has always been my belief that schools need great teachers and the school was set up with a teacher training college attached. The format saw trainee teachers spend alternate days in schools observing and teaching children. Through this design we became familiar with clear patterns to learnings, which later became the fundamentals of our learning research in Educational Initiatives.

“Our main observation was that rote learning had become the prime method of teaching and learning in schools across India, this system assesses a child’s rote memorisation skills much more than their understanding. We set out to develop a tool that would show, using solid data, the extent to which children were learning with understanding.

“Educational Initiatives was thus born in 2001. Our vision was to help children everywhere learn with understanding and we wanted to do this based on deep educational research and the use of data. Our flagship assessment product, ASSET, is a diagnostic test focused on measuring how well skills and concepts underlying the school syllabus have been learnt by a student. The test provides information on the strengths and weaknesses of individual students, as well as entire classes.

“Data from ASSET informed the Mindspark software – the next big step for Educational Initiatives. Mindspark is a personalised adaptive learning tool that allows each

student to learn at his or her own pace. To witness the very first use and impact of Mindspark was a career highlight for me – languages and subjects got added over the years and it is now available in four languages, and expected to reach nine by the end of 2020. Over ten million students have used Educational Initiatives’ assessments and learning products over the years!

“One key challenge we faced in the early years was to convince stakeholders of the value of learning (which does not always correlate perfectly with marks in the next exam) and thus our products. Principal by principal we overcame this and the greatest headway was made when schools started hearing from leading schools that they had found our products extremely useful. That was over 18 years ago – today these products are well-recognised and lead the fairly-crowded product categories they created! Our current challenge, especially in the government school space, has been around procurement of hardware and software. We have seen an improvement in government procedure for procurement in India and how decision makers determine good software. We have experienced situations where the hardware procured through a state tender was too underpowered to even run sites like YouTube. To address the unavailability of the internet in many rural parts, we created an offline version of Mindspark in 2013 – another milestone I am especially proud of.

“Today we’re grateful to everyone – donors, partners, researchers, students, teachers – who have joined us and supported us, as we pursue using cutting-edge research and to revolutionise how children learn around the world.”



Improving the quality of life for deprived children and their families in rural Ghana and Uganda through low-cost early childhood education and care programmes.

Investment summary

Size	\$1.3m to Lively Minds, \$785,000 to Institute for Fiscal Studies for randomised controlled trial
Stage	Test and Transition
Sector	Early childhood development
Country	Ghana

Lively Minds is currently operating in more than 250 schools in seven districts in northern Ghana and has agreed an MoU with the Ghanaian Education Service which intends to scale the programme to 4,000 schools in four regions of northern Ghana.

Why did GIF invest?

As in many other developing countries, children under the age of five in rural Ghana often fail to reach their development potential.

Despite the significant expansion in access to pre-schools services, quality remains low and children miss a crucial window for cognitive development and start school without a grasp of some foundational concepts. Investments in early childhood education can lead to significant gains in later life.

This innovation combines two ingredients which are instrumental for good outcomes – parental engagement in early years, and the use of play as a means of learning – in a scalable model delivered through public kindergarten schools.

What is Lively Minds using GIF investment for?

To train Ghana Education Service staff on how to deliver the programme in 250 kindergarten schools and undertake a randomised control trial to evaluate effects of the model on children's school readiness and other key outcomes.

What are we learning?

The GIF-funded evaluation was completed this year. Overall, the Lively Minds programme had positive impacts on children's cognition and school readiness, with improvements in pre-numeracy, pre-literacy, and fine motor skills. The programme also improved children's socio-emotional development, in particular reducing children's externalizing behaviours (conduct problems and hyperactivity). Children in programme schools also saw health improvements indicated by an increase in average upper arm circumference.

The programme also had significant positive effects on the parenting knowledge and practices of the mothers enrolled in the programme. There is strong suggestive evidence that while the cognitive effects are driven by exposure to the playschemes, knowledge and behaviour change among parents is the critical pathway for the achieved improvements in socio-emotional development.

Overall, the findings suggest that the Lively Minds programme is an effective and potentially scalable way to improve children's cognitive and socio-emotional development, health, and school readiness. They also demonstrate the potential of involving parents in pre-school to bring about effects on more kids and a wider range of developmental domains than a pre-school only or parenting only programme would.





To improve the income of the poor through skills-based secondary education in Africa.



Investment summary

Size	\$300,000
Type	Grant
Stage	Test and transition
Sector	Youth employment
Countries	Uganda and Rwanda

Why did GIF invest?

A vast number of young people in developing countries lack employability skills even after completing secondary school. Educate! focuses on reforming what schools teach and how they teach it. The organisation seeks to tackle the issue of unemployment in Sub-Saharan Africa head-on by providing young people with leadership, entrepreneurship and workforce readiness skills training.

GIF invested in Educate! to add to the education and labour economics literature, as there are relatively few long-term studies on similar short-term education programmes.

The positive results should provide greater credibility and potential impact for Educate!'s indirect policy work with national and local government.

Endline results released in 2019 from Educate!'s randomised controlled trial showed large impacts on soft-skills but not business skills. Results revealed girls in particular are making additional investments in education. The programme also generates important social spill overs, such as reduced engagement in risky behaviour and intimate partner violence.

What is Educate! using GIF investment for?

Educate! used GIF investment to test and expand the Educate! skills-based education programme. Randomised controlled trial results showed that young people developed their soft-skills and chose to stay in education longer, transitioning into tertiary education. Also based on the results, Educate! has developed a short training course aimed more directly at addressing the issue of helping young people start businesses.



A social enterprise supporting small and growing businesses, through intensive capacity building support on management best practices and flexible loans, to create good jobs.



Investment summary

Size \$230,000
Type Grant
Stage Pilot
Sector Business services
Countries Kenya and Uganda

Why did GIF invest?

Globally, two billion people work in the informal sector. In East Africa, it is around 75% of the population. Women and youth are disproportionately represented, and informal work is typically low paid, insecure and unsafe. Informal sector entrepreneurs are often excluded from investment and support to grow. As a result, they start small and stay small – a huge missed opportunity.

The benefits of economic development are unlocked through access to 'good jobs': jobs that are secure, formal, safe, and pay a decent wage. In a bid to tackle this, Balloon Ventures invests in small and growing businesses from poverty-reducing sectors that have the potential to create lots of good jobs.

The Balloon Ventures team provide entrepreneurs with intensive, tailored capacity building support on management best practices, alongside flexible loans, driving growth and improving employee conditions. The best performers are reinvested in and supported through each stage of growth.

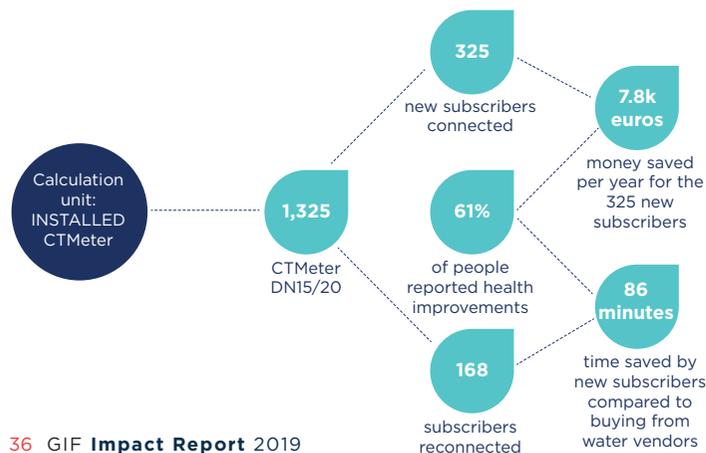
Investment in Balloon Ventures allows the opportunity to test and add to the body of evidence that shows improvements in management practices can lead to a significant enhancement in the productivity of businesses.

What is Balloon Ventures using GIF investment for?

Balloon Ventures is using GIF investment to refine and de-risk their model of delivering intensive, long-term, in situ management best practice support with high-fidelity in a cost-effective manner, and to create sector-specific best practice tools, policies, approaches, case studies and insights, that Balloon Ventures and other organisations can use to support informal small and growing businesses.



Using a prepayment service to bridge the gap between water utilities and the urban poor.



Investment summary

Size	\$500,000
Type	Convertible loan
Stage	Test and transition
Sector	Water access
Country	Niger

Why did GIF invest?

Connected, healthy, and equitable cities benefit everyone. Yet, one billion urban people currently live without running water in their home – a growing number given today’s rapid urbanisation, particularly in developing countries.

CityTaps has developed an innovative solution, CTSuite, that bridges the gap between water utilities and the urban poor: it is a prepayment service that comprises the world’s only smart and prepaid water meter and a billing software. CTSuite allows residents to prepay for running water in the home – which is cheaper, healthier, and more convenient than any alternative – with a mobile phone, at any time, and for any amount.

CityTaps comes with significant potential to scale through partnerships with leading water utilities in Niger, and other African countries, by offering improvements and expansions to their services. CityTaps partners with water utilities to help them improve their cash flows and balance sheets. With CityTaps, utilities can serve their customers

more efficiently, expand coverage, and access new sources of financing for their capital projects. The system helps utilities become financially independent and able to invest in infrastructure for at-home water services to even the poorest residents.

The innovation has significant impact potential, with a specific focus on women and girls, by providing a technology solution to improve efficiency in existing water distribution networks and improve access as well as reliability, especially for those living on less than \$5 per day.

What is CityTaps using GIF investment for?

CityTaps will use GIF investment for key hires, including business development executives and local executives; the deployment of meters across key anchor projects, including an expansion in Niger; and to iterate manufacturing processes to reduce cost of meter production.

GIF’s investment was structured as part of a pre-Series A investment round, as a bridge the investment gap until a larger Series A could be raised without the pressure of putting forward a valuation. GIF’s investment helped the company in this respect by allowing them to raise a 2 million Series A in 2019 with a valuation – 27% higher than the base valuation for the pre-series A round.



A social enterprise providing access to affordable and clean drinking water for millions of underserved urban customers for the first time.



Investment summary

Size \$500,000
Type Convertible loan
Stage Test and transition
Sector Water and sanitation
Countries Bangladesh and India

Why did GIF invest?

Through water ATM-enabled systems, Drinkwell's solution has the potential to improve millions of lives in Bangladesh and throughout South Asia where there is a low rate of piped clean drinking water.

A combination of patented purification technology, filtration, and pay-as-you-go cards underpin an easy-to-operate turnkey solution. Each system serves between 200–2,400 households, employs one to three people, and lasts for at least ten years.

Drinkwell's typical end users face multiple challenges. In the urban markets where GIF's investment into Drinkwell is focused, urban customers often have to pay elevated prices for water from either informal 'middlemen', who deliver water in unhygienic containers; or informal pump operators. As a result, the water sourced in this way must be boiled before consumed, a task that is disproportionately performed by women and girls.

Drinkwell has scaled its innovative systems as part of a unique partnership with some of the leading water

In 2019, Drinkwell grew the footprint of the Dhaka Water Supply & Sewerage Authority (the utility in charge of water and sanitation in Bangladesh's capital) to 88 water ATM-enabled systems, with 49,911 pay-as-you-go cards sold, serving over 234,580 people in Dhaka.

utilities as well as private and nongovernmental sector partners across Bangladesh and India and aims to provide safe drinking water to 5,000+ villages and urban areas, impacting one hundred million people by 2024. The innovation is solving a major global crisis affecting millions of people living on less than \$5 a day in a strategically important sector (water) and region (South Asia) to GIF.

Drinkwell also provides data for water utilities to take advantage of, to enable measurement of water quality on-demand as well as end user activity at each dispensing point, which has previously been untracked. This data can inform ways to improve public service provision. The data can also be enhanced in the future to collect rich insights on service delivery and its impact, through gender-disaggregated information on end-user water access, water consumption patterns and payments.

What is Drinkwell using GIF investment for?

This investment will allow Drinkwell, in partnership with the Dhaka Water Supply & Sewerage Authority, to provide legal access to clean water for millions of additional low-income households via 300 water ATM systems. This will enable the company to grow and expand services for access to clean drinking water.

What are we learning?

GIF's investment in Drinkwell was predicated on learning about a partnership model whereby a private technology driven enterprise and a public water utility align to deliver clean drinking water to low-income urban communities in Bangladesh. This includes using data for decision-making which will help the service scale up. The data produced by Drinkwell can serve as an invaluable tool for policymakers as they consider water supply and safety issues in developing country municipalities. Our early learnings on Drinkwell include:

- The pioneering public-private partnership model developed by Drinkwell, which includes a monthly operating and maintenance service agreement to avoid bureaucracy and drawn out tender processes often associated with government projects, can be effective at mobilising resources between private sector companies and the public sector to extend critical services to underserved populations.
- Client – customer incentive alignment and risk sharing is essential to build long-term, sustainable partnership models in challenging industries such as water provision. Drinkwell has liaised closely with investors and clients about optimal payment models to share upfront costs and efficiency gains across all parties, so that all stakeholders are motivated to optimise for economic development impact and financial sustainability in an equitable manner.

Meet the innovator



Minhaj Chowdhury, Co-Founder and CEO, Drinkwell

“Growing up as a Bangladeshi-American I would frequently visit family in Bangladesh during school holidays. I recall being deeply saddened to think how in the US we never had to worry about water being fatal, but how in Bangladesh one in every five deaths was associated with unsafe drinking water.

“In the 1970s when Bangladesh first became an independent country, over 10 million tube wells were drilled. At the time the wells were installed, arsenic was not recognised as a problem in water supplies meaning standard water quality tests did not include arsenic. However, in the year 2000 it was discovered 30% of the wells – and, in turn, the public water supply – were impacted by naturally occurring arsenic found in the alluvial Ganges aquifers. This adversely affected the health of millions of people, including my grandfather who died due to a disease linked to water. The World Health Organization called Bangladesh’s arsenic crisis “the largest mass poisoning of a population in history”, and chronic exposure to contaminated drinking water continues for millions of Bangladeshis today. Further, this problem is not just limited to Bangladesh but also in many other parts of the world including India, Chile, as well as the US.

“I founded Drinkwell in 2013 with the goal of providing filtration systems to poor communities in areas such as Bangladesh. I’m pleased to report that more than 290,000 people now load “water credits” onto their Drinkwell cards and use them at designated Drinkwell sites that collectively employ more than 400 people across Bangladesh and India. We’re on track to expand our network to serve more than one million people in 2020.

“Water is absolutely a human right. When you actually provide water to people in need it shouldn’t be a for-profit activity, rather it should be provided by the government. At the same time, many governments lack the capacity and resources on a standalone basis to provide safe water creating the space for public-private partnerships that ensure equitable access to safe drinking water.

“At Drinkwell we’ve learned that when we partner with the government we can focus on our strengths as a technology provider and build a repeatable model that has global scale. In India, we’ve successfully piloted our patented arsenic and fluoride removal technologies across community-based and piped water systems across West Bengal and Assam and are now scaling via government funds. Such public-private partnership models enable us to do what we do best: transform water through science and technology as we march onwards in our vision of impacting one billion lives by 2030.”

To reduce poverty by ensuring that policy is informed by scientific evidence through research, outreach and training.



Investment summary

Size	\$1,300,000
Type	Grant
Stage	Test and transition
Sector	Health
Country	India

Why did GIF invest?

According to the World Health Organization, there are approximately two billion people with anaemia in the world, and half of these cases come about as a result of iron deficiency.

Grain fortification is considered to be an effective way of tackling high rates of prevalence of anaemia.

What is J-PAL using GIF investment for?

J-PAL is using GIF investment to create an intervention that involves replacing the conventional rice provided free of charge through the Public Distribution System in Tamil Nadu in India with fortified rice to tackle anaemia, and to conduct an RCT to evaluate the impact of the intervention on anaemia and other micro-nutrient deficiencies.

J-PAL will generate and document evidence on the effectiveness of this innovation, as well as its implementation through a Public Distribution System. Both the intervention and evaluation have the support of the state government of Tamil Nadu.



MR. GREEN AFRICA

A recycling business that integrates marginalised waste collectors into a fair-trade system.



Investment summary

Size	\$1,000,000
Type	Equity and debt
Stage	Test and transition
Sector	Recycling
Country	Kenya

Why did GIF invest?

Waste management is a critical issue in Africa and Kenya's capital, Nairobi, is no exception. The city produces around 2,400 tonnes of waste a day, of which roughly 60% is collected and only around 10% recycled. The rest is dumped illegally or burned.

However, a group of people – sourcing agents – have spotted an opportunity: to collect waste and sell it on. They aren't employed by anyone. These are marginalised people trying to make a living who are routinely exploited by traders who pay them very little or don't buy from them at all.

Mr. Green Africa identified sourcing agents as invisible heroes and those creating the most value in the whole waste-recycling chain. They are also making a positive contribution to society and the environment.

Mr. Green Africa guarantees sourcing agents a premium price, so they can make a higher, stable income and help themselves out of poverty. This price can be offered due to an integrated process,

In Nairobi nearly 900,000 tonnes of waste is produced a year, but only 38% is collected, and less than 10% is recycled. The bulk of waste is sent to official landfill sites that are capacity-constrained, discarded on illegal dumpsites, or burned.

which means the ability to bypass the usual traders, sorters and transporters – middlemen who all take a cut along the way.

Mr. Green Africa benefits by getting a regular supply of recyclable plastic, which is processed into a valuable raw material. This feeds back into the plastic manufacturers' supply chain, enabling Mr. Green Africa and their customers to save costs and achieve their circular economy goals.

GIF's investment in Mr. Green Africa allows us to reach one of the most socially marginalised populations in the world living on less than \$2 per day, and address an important challenge facing sustainable urban growth.

Bringing the benefit of formalisation to the informal sector is a key theme for GIF; as part of this theme GIF is excited to invest in an organisation that has a direct impact on informal sourcing agents. The sourcing agent population can be substantial in many cities – in Nairobi, there are roughly 10,000 individuals who pick waste as their full-time

equivalent occupation, and many thousands who will waste pick on a part-time basis to supplement their income.

What is Mr. Green Africa using GIF investment for?

The investment will allow Mr. Green Africa to expand and build on the aggregation model which enables it to scale the trade of recyclables while building a strong and reliable supplier network. It will lead to increased processing capacity to produce higher value, recycled products in larger volumes to supply consumer goods companies.

GIF's investment will specifically go towards a new pelletizer machine, resulting in uniformity for plastic pellets (made from flakes) and a subsequent premium price.

What are we learning?

Given the capital-intensive nature of plastic recycling using advanced processing machinery, there is a constraint on Mr. Green Africa's operating capacity and the volume of plastics they can purchase from their sourcing agents. We are learning, alongside Mr. Green Africa, how to overcome this capacity constraint and continually improve the lives and employment of their sourcing agents.

We are also working directly with Unilever to drive accountability across the fast-moving consumer goods industry for stakeholders across their supply chains. Together, GIF and Unilever are learning to build a tangible channel for replication of the Mr. Green Africa model of inclusivity and productive jobs across companies that rely on sourcing agents in the recycled plastic business. As a result, it is anticipated lessons learned in the developing world can be applied in developed markets.



SPARKMETER⚡

Helping to make access to electricity possible in hard-to-reach places and under-served markets.



Investment summary

Size	\$658,000
Type	Loan and equity
Stage	Test and transition
Sector	Energy access
Countries	Various across Sub-Saharan Africa, South Asia and Latin America (25 total)

Why did GIF invest?

Across the world, as many as 1.1 billion people are living without electricity, and a further one billion are dependent on very unreliable grid systems. For many, especially those based in more rural, remote communities, frequent power outages and unreliable service are the norm. Our investment in SparkMeter is helping to address these challenges.

SparkMeter provides smart metering technology to central grid utilities and micro-grids to enable real-time monitoring and pay-as-you-go electricity usage, and puts in place measures to prevent outages. So far, SparkMeter's technology has connected thousands of customers in Africa, Asia, and Latin America.

SparkMeter is the most reliable and cost-effective means of moving data between the grid edge and the cloud in environments that have low bandwidth and intermittent power. The company is the leading choice for microgrids and have sold over 50,000 meters to date in 25 countries. In 2019, SparkMeter launched a new flagship software platform, Koios, which marks the beginning of a new suite of features and data analytics for SparkMeter customers.

What is SparkMeter using GIF investment for?

SparkMeter used GIF investment for research and development, specifically to establish a full suite of certified meters that can scale to both microgrids and central grid utilities, as well as for operational runway as the company positions to grow its software suite and scale its platform.

What are we learning?

Over the course of the investment we anticipate evidence generated by SparkMeter will demonstrate that there is a sustainable path for utilities to serve low-income consumers, through a data driven approach.



Seeking to revolutionise distribution and unlock access to gas for the next billion users.



Investment summary

Size	\$416,705 (\$230,692 of debt; \$186,013 of Series A equity)
Type	Debt, equity and warrants
Stage	Test and Transition
Sector	Energy access/clean energy
Country	Kenya

Why did GIF invest?

PayGo provides pay as you go (PAYG) smart meter technology for liquefied petroleum gas (LPG) cylinders, coupled with a distribution model that is adjusted to the needs of low-income households in Nairobi. LPG has fewer negative health outcomes compared to other fuels such as kerosene, wood or charcoal. However, LPG can be an unattainable product for low-income households as it requires upfront investment and large purchases (a full canister of gas needs to be purchased each time). PayGo's innovation lowers the upfront investment and allows purchase of LPG as you go, making LPG a divisible technology and improving access for low-income households.

What is PayGo using GIF investment for?

Ongoing research and development to develop its meter; and a 300-household pilot, which showed strong results in user uptake and activity, including 95%+ retention.

In 2019 PayGo signed its largest contract to date to supply smart metering technology to thousands of households for a leading African cylinder manufacturer.

The Kenyan Bureau of Standards launched a new standard for LPG metering that represents a world-first for the technology, and PayGo Energy's Cylinder Smart Meter is the first meter on the market to fully comply.

What are we learning?

The domestic mass market are predictable consumers of gas when given the opportunity to pay incrementally: 85% of PayGo customers are first time users of gas, and PayGo's average revenue per customer is four times the industry average.

Low-income beneficiaries are willing and able to pay for clean cooking fuels, such as LPG, if they are provided a mechanism to access the fuels by making payments in affordable instalments.

PayGo's local market insights and solution set is of immense value to some of the largest energy companies in the LPG value chain in Africa, who have already expanded their market share, reach, and retain new customers.

Having local market knowledge and deep expertise in a pioneering product creates rich opportunities for public-private collaboration. PayGo forged a meaningful relationship with the Kenyan Government and was a valuable resource partner for the Ministry of Energy and Petroleum, helping advise and shape a pioneering new LPG regulatory standard released by the Kenyan Government in 2019.

Additionally, through ongoing collaborations with PayGo's operational team, GIF is learning more about the customer segmentation and household level impacts of LPG. Effecting behaviour change is challenging, and generating reliable data to assess the positive health impacts from transitioning to cleaner sourcing of cooking fuels is the holy grail of the clean cooking sector. GIF will continue to engage with PayGo around initiatives to strengthen and analyse their data collection, including exploring studies to evaluate indoor air pollution at the household level, to drive greater impact for low-income recipients served by the company.





Making it simple for one billion people to access and use money.



Investment summary

Size	\$5,000,000
Type	Equity
Stage	Scale
Sector	Financial inclusion
Country	Nigeria

Paga is Nigeria's leading mobile money and multi-channel digital financial services platform. Since Paga's journey began over 110 million transactions have been processed, worth \$7 billion. Paga has over 15 million unique users and 25,000 agents operating across all 36 states in Nigeria.

Why did GIF invest?

With 42% of Nigerians financially excluded, dealing in the cash economy and having to live without access to essential financial services has held back the poorest in society from creating safety nets and opportunities to get out of poverty.

Paga brings financial services closer to the mass market by using a large agent network and digital platform to deliver a variety of financial services including P2P money transfers, bill payments, airtime purchases, remittances, savings, and loans.

GIF provided extended runway for Paga to build to a Series C investment without punitive financial terms. In doing so, GIF also catalysed further investment from existing co-investors, who required an external investor to validate further investment into the company.

What is Paga using GIF investment for?

Paga is using GIF investment to launch additional services to serve low-income customers (including savings, lending, bill-pay, and shopping) as well as to expand to additional markets within Nigeria and elsewhere with high volumes of unbanked customers.

What are we learning?

GIF is learning about building a strong consumer-facing brand which offers a one-stop shop for financial access, and the challenges around regulatory, customer acquisition, and market/competition – dynamics of expanding financial inclusion in underserved markets, and the key tenets of building a sustainable business model which creates value for the economy in this crowded fintech market segment.

Having a strong ground-game and broad agent network with presence across the country is a critical factor to achieve and retain customers.



Offering free tax-filing software to individuals and businesses in Indonesia, allowing them to prepare, pay, and file their own taxes.



Investment summary

Size	\$1,750,000
Type	Equity
Stage	Test and transition
Sector	Domestic resource mobilisation
Country	Indonesia

Why did GIF invest?

In many developing countries, government services are too often of poor quality or limited in their reach. Improving public services requires money, whether it is from borrowing, aid, or the mobilisation of domestic resources through taxation, savings, or even investments.

OnlinePajak offers free tax-filing software to individuals and businesses in Indonesia, allowing them to prepare, pay, and file their own taxes. Its free, user-friendly technology reduces the cost of tax compliance to individuals, firms, and government. The company brings a private sector approach to a public sector challenge.

OnlinePajak's technology can help to lower barriers to tax filing and payment, leading to extra tax revenue, and therefore improved domestic resource mobilisation in Indonesia. It is already the leading tax application in the country.

In September 2019, OnlinePajak arranged a CEO Tax Talk, to help improve engagement and co-operation around tax reform among government officials, tax consultants and business leaders.

What is OnlinePajak using GIF investment for?

OnlinePajak is using GIF investment to improve the breadth of services provided to the taxpayers of Indonesia, including the launch of new products such as tax payment services, invoice financing and HR software. In addition, the company aims to attract more companies to prepare, file and pay their taxes online. Thereby reducing tax compliance costs for small businesses and improving public sector governance.

GIF investment will also support OnlinePajak to build internal capacity to better understand the data it collects and how it could be used to improve public policy.

What are we learning?

How to engage and collaborate with government ministries around the design and development of technologies provided by the private sector.

How to encourage tax compliance among Indonesian SMEs through user-centred design and convenient payment solutions.

GiveDirectly

To reshape international giving, making unconditional, direct cash transfers to the poor – the benchmark against which other interventions are evaluated.



Investment summary

Size	\$2,100,000
Type	Grant
Stage	Test and transition
Sector	Cash transfers
Country	Uganda

Why did GIF invest?

GiveDirectly is a charity which provides unrestricted cash transfers to some of the world's poorest people via a mobile money payments platform. It uses a data-driven model to test whether delivering a relatively large, lump-sum cash transfer, as opposed to stream, subsistence payments or in-kind aid, can empower refugees to jump-start a better life, meet their own needs, and build sustainable livelihoods.

By investing in GiveDirectly, GIF can help fill an evidence gap around the impact of the use of large, unconditional cash transfers in refugee settings. GIF is also interested in the value of sharing with the wider sector lessons generated by GiveDirectly's work, and the implications of the study findings for decision makers providing humanitarian aid in refugee contexts.

While cash transfers account for only about 10% of humanitarian aid, studies have linked them to significant improvements in school attendance and healthcare utilisation. Recipients also tend to save or invest some of the money, which promotes income generation instead of reliance on aid.

What is GiveDirectly using GIF investment for?

Building on a pilot undertaken in 2017 that saw GiveDirectly launch the first ever randomised evaluation of large cash transfers in a refugee context, GiveDirectly is using GIF funding to test a larger-scale operational model involving cash transfers to 10,000 refugee and 5,000 host households in Uganda. Funding will enable GiveDirectly to add to the evidence base to inform future decision-making in humanitarian funding, prove out an implementation model, and support dissemination of study findings regarding the use of large lump-sum cash transfers in refugee settings.



Improving millions of lives by transforming how the social sector innovates, learns and improves.



Investment summary

Size	\$230,000
Type	Grant
Stage	Pilot
Sector	Improving state capacity
Country	Zambia

IDinsight completed a pilot in the Mukobela chiefdom in Zambia's Southern Province, developing lean data collection methods and an android app to present the data to the Chief. The Nano process involves new methods of sampling using digital maps and coordinating e-numeration activity for efficiency, and employs a modular approach which enables the decisionmakers to request data they need most.

Why did GIF invest?

Management information systems are often focused on pushing information upwards for top-down accountability. Meanwhile, frontline decision-makers may lack access to relevant, timely and actionable information. ID Insight aim to create a process which can equip frontline decision makers with the data important for them to make decisions about the health and wellbeing of their constituents at a low-cost and in a user-friendly means.

What is ID Insight using GIF investment for?

GIF funding enabled IDinsight to work with one Chief in Zambia's Southern province to understand his data needs for decision-making.

IDinsight have developed new data collection processes and the Nano Information System, an android app which allows the chief to interact with data visualizations.

A Nano Information System do-it yourself manual has also been developed.

What are we learning?

The Nano Information System is intended to be a faster, cheaper and more impactful information systems which meets the needs of front-line users. To that end the IDinsight team has develop new methods of sampling and remunerator management to make the data collection process leaner while ensure data is of a robust quality. A modular approach enables the decision-makers to request data they need most. In Mukobela Chiefdom Nano has plugged gaps in data availability and equipped the Chief with new information on social, education and health issues which improved on existing knowledge and assumptions. By including prompts to action the Nano app enables the chief to more effectively lobby line ministries, district councils and NGOs for action. Specifically, the Chief is seeking more resources for health facilitates and is aiming to work with other Chiefdoms to explore means of reducing child marriage.

Muli buti ba Mwami ba Mukobela!

VIEW DATA

REQUEST DATA

Get help from the Nano team



< Module

Distance to primary school in dry season (hours)

1.2

Precision bounds (1.1, 1.4)

VIEW VILLAGE CLUSTERS

Distance to primary school in rainy season (hours)

1.5

Precision bounds (1.3, 1.6)

VIEW VILLAGE CLUSTERS

Distance to secondary school in dry season (hours)

1.4

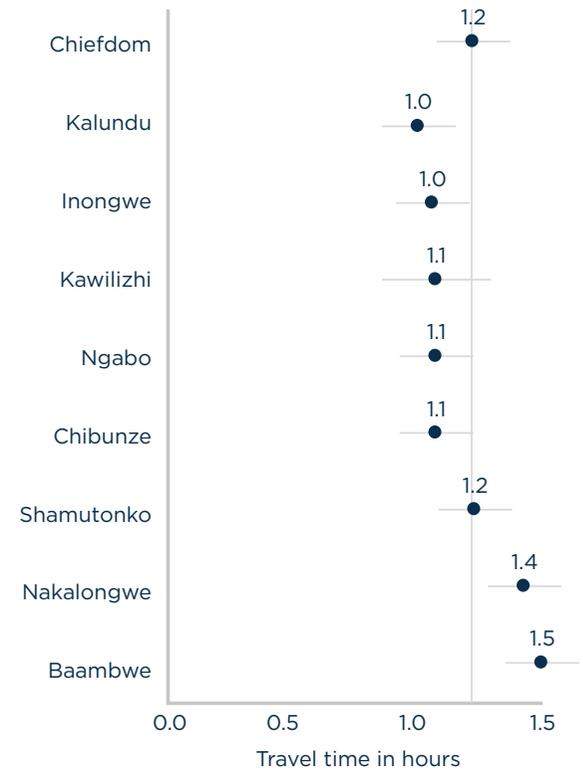
Precision bounds (1.1, 1.6)

VIEW VILLAGE CLUSTERS



CLOSE

Distance to primary school in dry season (hours)





Improving the lives of vulnerable communities by building a network that shares ideas and innovations to create global impact.



Investment summary

Size	\$856,000
Type	Grant
Stage	Test and transition
Sector	Health
Country	Pakistan

Why did GIF invest?

In Pakistan alone, an estimated nine to 13 million children under the age of two have not received age-appropriate immunisation coverage.

Interactive Research and Development (IRD) is carrying out a three-year randomised controlled trial to find the most cost-effective way to ensure parents complete the required immunisation vaccines for children under two.

GIF invested because small scale conditional cash transfers present a promising approach to increase immunisation coverage specifically among low and middle income countries and as such, warrant further evaluation.

IRD's study is an attempt to do just that and will generate key findings for policy makers regarding the most optimal and cost-effective way of structuring small incentives and enhancing state capacity to deliver these incentives. If successful, major stakeholders and policy makers working on children's health and immunisation could use

IRD has shared study progress with partners such as vaccine alliance Gavi, and the Norwegian Agency for Development Cooperation to facilitate cross-learning and explore implications for policy implementation.

these results to inform their own immunisation programmes or health/social protection policies in other countries. Findings have the potential to address both financial and logistical scale-up constraints to immunisation programmes.

What is IRD using GIF investment for?

IRD is using GIF investment to run a three-year RCT to find a cost-effective way of incentivising parents to complete vaccination regimens for their children. The study aims to find the optimal schedule, design, and cash incentive amounts to achieve a higher immunisation completion rate in the most cost-effective way in Karachi, Pakistan.

SEGOVIA

Frontier market payments, simplified.



Investment summary

Size	\$750,000
Type	Equity
Stage	Test and transition
Sector	Poverty and social protection
Countries	Kenya, Uganda and Pakistan

Why did GIF invest?

Cash transfers are a cost-effective, evidence-based means of enabling vulnerable people to meet basic needs in emergencies and to escape poverty. Yet identifying who should be paid, integrating across the dozens of payment networks required to reach them, remains a slow, manual, risky process. Segovia provide software that improves the efficiency of cross-border payments. This makes aid programmes and remittances faster, cheaper and more secure. Segovia's first-of-its-kind technology aims to increase the money received by poor beneficiaries by reducing diversions, transfer costs and inefficiencies.

In 2019 one of Segovia's business units, its payment platform, merged with Crown Agents Bank, a leading emerging markets bank. Crown Agents Bank saw large potential in integrating Segovia's payment

technology with its existing banking services. The combined solution will allow payments to and from frontier markets to be made faster, cheaper, easier and more secure. Segovia's other business unit, its consumer remittance product TapTap Send, remains an independent entity, with GIF and other shareholders' optimistic about the business's growth prospects.

The platform reduces the complexity of bulk payment for NGOs, governments and corporates, allowing its partners to integrate across payment providers and countries, so they can schedule, issue, and reconcile bulk payments or other distributions like vouchers more seamlessly. This radically improves the efficiency of aid by making it faster, cheaper and more secure to transfer funds directly to vulnerable populations. With support for corporate payments and social programmes, Segovia payments span over 20 countries and have supported gig economy workers in East Africa; refugees restarting their lives in Europe; and communities rebuilding after Ebola in Liberia.

What is Segovia using GIF investment for?

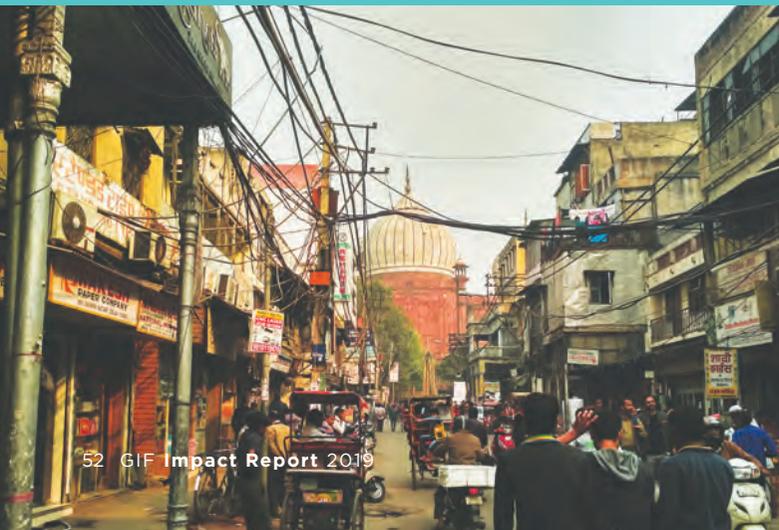
Segovia used GIF investment to test the efficacy of Segovia's software, extend the reach of Segovia's technology by growing its client base, and deepen the functionality of the platform, including advanced customer support and data security.

What are we learning?

We are learning how innovations can scale through merging with complementary businesses; and how the cost of Europe to Africa remittances can be lowered through mobile payment technology.



To use the power of behavioural science to design scalable solutions to some of society's most difficult problems.



Investment summary

Size	\$300,000
Type	Grant
Scale	Pilot
Sector	Cities, environment and taxation
Country	TBD

GIF currently invests in two projects led by ideas42 - City Nudges, which makes the case for cities to use pay for performance mechanisms to reduce their risk when using behavioural nudges to increase tax revenues or save energy and water; and Cash Transfers - which uses behavioural science to inform additions to cash transfer programmes to support cash recipients to clear debt, make savings or invest in productive activities.

Why did GIF invest?

There is a growing body of evidence which shows that approaches and interventions informed by insights from behavioural science, or 'nudges', can help local governments to improve tax compliance or save water or energy. However, these approaches are not widely adopted in developing countries. Pay-for-performance contracts could allow cities to commission interventions from behavioural scientists and only pay when the nudges deployed lead to cost-effective impacts.

ideas42's CityNudge Accelerator initiative aims to help cities and other local governments to experiment with the latest innovations in resource conservation and revenue generation with a results-based financing model.

What is ideas42 using GIF investment for?

With GIF funding ideas42 is brokering partnerships with cities in developing countries across the world to explore the potential of pay-for-performance contracting through pilot partnerships. This work seeks to better understand the opportunities and challenges cities face in embracing pay-for-performance for behavioural nudges and hopes to contribute to a shift from the prevailing grants-based nudge funding approach to a more incentive compatible outcomes-based approach.

What are we learning?

We are learning about effective ways to pitch pay-for-performance to governments around the world and what drives decision making related to procuring pay-for-performance services for local taxation, and the preservation of water and energy.



Cash Transfers

To use the power of behavioural science to design scalable solutions to some of society's most difficult problems.



Investment summary

Size	\$2,220,730
Type	Grant
Stage	Test and transition
Sector	Poverty alleviation
Countries	Kenya, Ghana and Tanzania

Why did GIF invest?

Over the past twenty years there has been a rapid expansion in the number and coverage of social protection programmes with a cash transfer component in developing countries. These programmes are responsible for providing safety nets for millions of people and uplifting millions more out of poverty each year. As these programmes support more of the world's most vulnerable populations, they face growing demands to increase their effectiveness. Applying insights from the growing literature on behavioural science has the potential to bring about significant additional cost-effective impact by minor adjustments to programme features to “nudge” beneficiaries on their decisions and actions. Ideas42 use a problem driven process to understand drivers of behaviour and draw from the behaviour science literature to design nudges which may enable cash transfer recipients to make better use of the transfers they receive. If these nudges are effective, they could be easily scaled and adapted for programmes across Sub-Saharan Africa.

What is ideas42 using GIF investment for?

GIFs funding allows ideas42 to partner with the World Bank's Social Protection and Jobs Global Practice and

Initial evaluation activity undertaken in Kenya and Tanzania found that solutions developed meant beneficiaries were more likely to set goals and save more. Furthermore, in Kenya recipients were more likely to clear debts, while more recipients in Tanzania made productive investments in income generating activities.

the social protection agencies of Kenya, Tanzania and Ghana to develop and test behavioural enhancements to their cash transfer programmes. This enables ideas42 to understand drivers of existing behaviours and use concepts from behavioural science to design programme components to complement the cash transfer. These include products which encourage planning, goal setting and saving. GIF investment enables ideas42 to undertake evaluation activity to identify how these interventions influence recipients' behaviours and contribute to saving, debt reduction or investment in productive activities.

What are we learning?

Evaluation activity undertaken to date suggests that, at a cost of less than \$5 per beneficiary per year, behavioural insights can increase the impact of cash transfers at little additional cost. Iterative testing in short-term, low costs tests are essential to make modifications to behavioural designs and familiarise social protection agencies with the methods involved in designing and evaluating behavioural adaptations. Lastly, the development of various tools and resources that facilitate easy application of behavioural science to cash transfer programmes will play an important role in enabling behavioural science to be applied broadly on a large scale across the sector. Ideas42 is development toolkits to support wider uptake of these approaches.

Working in partnership with governments, local authorities, businesses and charities, often using simple changes to tackle major policy problems.

Investment summary

Size	\$3,850,000
Type	Grant
Stage	Scale
Sector	Multiple
Countries	Guatemala, Indonesia and Bangladesh

Why did GIF invest?

Behavioural insights have been used across public services to generate low-cost interventions to improve service outcomes. The approach is based on the idea that interventions aimed at encouraging people to make better choices for themselves and society will be more successful if they are based on insights from behavioural science.

There is a large body of evidence that people suffer from numerous cognitive biases, and behavioural insights can help overcome those biases and inform 'nudges' to behaviours toward desired outcomes. The Behavioural Insights Team (BIT) partners with governments to equip them to use behavioural design methods to design, test and scale enhancements to initiatives in tax, education and other sectors. The vision is that this will leave government partners better placed to use behavioural science in their work in the future. GIF has supported BIT in generating evidence and scaling up behavioural interventions in certain areas.

Across education, tax, and gender sectors BIT has:

- proposed 35 trials;

BIT is undertaking trials with ten partners across Guatemala, Bangladesh and Indonesia. In Indonesia, the tax administration office tested different means of encouraging early filing rates. The most effective intervention was subsequently scaled to 11 million taxpayers, meaning an estimated extra 133,000 tax returns were submitted, and more than 200,000 tax returns were estimated to have been submitted earlier.

In Guatemala, BIT is working with the tax authority to encourage timely submissions and to encourage online declarations. It is also partnering with the Ministry of Education on various initiatives.

In Bangladesh BIT works with the a2i (Access to Information) government programme to apply behavioural insights to issues including land registration and online education.

- completed five trials;
- eight trials are at analysis stage;
- scaled a tax trial in Indonesia to over 11 million users.

What is BIT using GIF investment for?

GIF funding enables BIT to work with partners in Guatemala, Bangladesh and Indonesia. These partnerships are focused on designing and testing behavioural interventions through a series of randomised controlled trials. This contributes to the evidence base on behaviourally informed policies and informs scaling of the most effective nudges. Most importantly, it equips government partners to use behavioural design and evaluation methods to inform programme design.



Increasing remittance flows through non-binding labelling.



Investment summary

Size	\$1,700,000
Type	Grant
Stage	Test and transition
Sector	Remittances
Countries	Philippines and Pacific Islands

Why did GIF invest?

Remittances are a key financial flow to developing countries, but they currently represent a small share of the total earnings of overseas migrant workers. A key barrier to maximising the development potential of remittances is that migrants who are sending these funds have limited ability to monitor or control how they are used by beneficiaries. The project seeks to offer overseas Filipino migrant workers the ability to designate their remittances as intended for a specific purpose in a non-binding way through a smartphone app called Padalapp.

The application allows users to label remittances for purposes such as education, housing, savings and enterprising activities. Recipient households receive the labels via text SMS or other preferred media. IPA is studying the effect of this labelling option on the remittance behaviour of migrants.

Results may facilitate the development of financial products that increase remittance flows to developing countries and channel these remittances to the most productive uses. If this intervention is effective as a real-world product, it could be scaled by banks and other remittance providers like money transfer operators quite easily, because labelling requires minimal modification to existing remittance platforms.

What is IPA using GIF investment for?

IPA is using GIF investment to carry out a study to test both changes in remittance behaviour of and changes in spending patterns, buying behaviour and life outcomes of recipient households in the Philippines.



TALENT BEYOND
—BOUNDARIES—

Building a world
where refugees can
rebuild their lives while
contributing to the
global economy.



Investment summary

Size	\$230,000
Type	Grant
Stage	Pilot
Sector	Refugee self-sufficiency
Countries	Jordan, Lebanon, Canada and Australia

Why did GIF invest?

With more than 25 million refugees globally, existing resettlement pathways are ill-equipped to provide sustainable solutions to the refugee crisis. Meanwhile, employers across the world face critical skills shortages. Talent Beyond Boundaries identifies skilled refugees who are displaced and works to support their recruitment with employers which need their skillset. This complementary pathway has the potential to be a bold new solution to the refugee crisis, allowing refugees to migrate on the basis of their skills rather than their vulnerability, making a transformative change to their income while making a positive contribution to the companies and communities to which they move.

What is Talent Beyond Boundaries using GIF investment for?

To enable testing of the labour mobility pathway by supporting an initial 20 refugees to migrate on permanent work permits. GIF funding is also supporting Talent Beyond Boundaries to advocate for changes to visa regimes and the creation of new pathways with their government partners and at the global level.

In February 2019 the first candidate successfully moved to Canada and started work at tech firm Bonfire, where he was visited by Prime Minister Trudeau in a show of support for this programme. To date, nine refugee candidates have migrated to Canada and Australia with 13 dependents, and a further 12 have received job offers.

What are we learning?

This pilot programme has already shown that refugee communities often have skills which are in huge demand in the global economy, and that employers recognise the value in hiring from refugee communities. Most importantly this pilot is enabling Talent Beyond Boundaries and the governments they partner with to identify the most pressing barriers refugees face in accessing visa regimes. These barriers include the need for a valid passport, recent employment histories and “proof of funds” requirements. By working with migration authorities to embed flexible solutions to these challenges, visa regimes can be reformed to make them easier for refugee candidates to access in the future. Meanwhile, Talent Beyond Boundaries is showing the transformative impact for candidates who migrate with their dependents and can receive a lifetime earning boost of up to \$1.5m. Lastly, in 2018 Talent Beyond Boundaries secured commitments in both the Global Compact on Refugees and the Global Compact on Migration in support of labour mobility as an underutilised solution to the refugee crisis.

Evidence Action

Evidence Action aims to be a world leader in scaling evidence-based and cost-effective programmes to reduce the burden of poverty.



Investment summary

Size	\$2,570,000
Type	Grant
Stage	Test and transition
Sector	Agriculture, seasonal migration
Countries	Bangladesh and Indonesia

Why did GIF invest?

With an estimated 300 million people suffering from seasonal hunger, Evidence Action's No Lean Season offered subsidies to low-income agricultural workers as an incentive to migrate to urban areas during the famine season, where higher wages can be earned.

This programme was supported by a series of randomised control trials carried out in Bangladesh between 2008 and 2014 that have demonstrated persistent impact on the take-up of seasonal migration for employment and welfare gains for families at risk of famine.

In 2017 Evidence Action expanded No Lean Season ten-fold to reach 700 villages, disbursing over 40,000 loans and used a randomised controlled trial to evaluate the programme at large scale. Initial results in 2018 showed that uptake of loans was lower than expected and migration rates did not increase as had been the case in previous trials. Evidence Action identified challenges in targeting

potential migrants owing to the scale-up and broadening of eligibility as among potential causes. In light of these results, Evidence Action decided to cease the programme.

This investment underscores the challenge of replicating impactful innovations at larger scale, where operational challenges may inhibit implementation with fidelity or the conditions in which initial pilots demonstrate initial success are not in place.



An e-commerce platform in West Africa providing a low-cost cash-to-goods remittance service.

Investment summary

Size	\$3,000,000
Type	Preferred equity
Stage	Test and transition
Sector	Domestic resource mobilisation
Countries	Cote d'Ivoire, Senegal, Benin, Togo and Cameroon

Why did GIF invest?

Afrimarket offered a unique solution to apply an eCommerce approach to a development problem with a low-cost, cash-to-goods service for sending remittances, locally sourcing and distributing products including food, sanitation and construction materials in West Africa, serving as a compliment to traditional money transfer operators.

In 2019 Afrimarket ceased operations. While the company had experienced significant growth and traction, they were ultimately not able to raise a Series C investment due to limited interest in smaller African eCommerce companies.

What did Afrimarket use GIF investment for?

GIF's investment enabled Afrimarket to fund their growth strategy; Afrimarket increased its Gross Merchandise Value over three times from 2017 to 2019. In order to achieve this, Afrimarket invested in customer acquisition costs, marketing, improving their logistics and delivery infrastructure, expanding the team and servicing fixed costs.

What did we learn?

Logistics and delivery in Sub-Saharan Africa continue to be expensive, especially given limited residential density. Afrimarket also learned that there is a limited market for diaspora shopping online for cash-to-goods remittances. Furthermore, the presence of a well-funded competitor may have deterred some potential investors in Afrimarket.





Not to import solutions into the developing world, but to add value to society and industry locally.



Investment summary

Size	\$120,000
Type	Grant
Stage	Pilot
Sector	Nutrition
Country	Malawi
Region	Sub-Saharan Africa

Why did GIF invest?

According to UNICEF, more than 50 million children under five suffer from Acute Malnutrition (comprising Severe and Moderate Acute Malnutrition). Chronic Malnutrition – a condition which leads to both physical and mental ‘stunting’, affects a further 150 million children in developing countries.

VALID Nutrition’s mission is to develop and bring the choice of highly effective, affordable and appealing ready-to-use therapeutic foods (RUTFs) to impoverished consumers in developing countries – at scale.

RUTFs are energy-dense, fortified pastes designed to combat malnutrition. Existing products are made from expensive inputs such as milk powder and high-quality peanuts which reduces the number of children being treated due to cost, and is also not conducive to supporting local production of these products in Africa.

VALID and its research partner, Ajinomoto Co. Inc., developed an innovative, lower cost RUTF comprising crystallised amino acids, combined with the main ingredients of Soya, Maize and Sorghum (SMS-RUTF). With 96% of ingredients being readily available in Africa, SMS-RUTF allows VALID to source ingredients where the foods are being deployed, adding long term value to local agriculture and communities.

For the first time since RUTFs were developed, Valid has a lower cost product that is as efficacious as the standard milk-peanut product, but contains locally-sourced ingredients and is proven superior in treating anaemia, and replenishing body iron stores. SMS-RUTFs are a transformational development for the international RUTFs market, and, most importantly, for 200+ million children suffering from various forms of malnutrition.

What is VALID Nutrition using GIF investment for?

To conduct clinical and acceptability trials of their new products to demonstrate effectiveness, as well as the potential for cost savings.

In 2019 Valid Nutrition’s new study findings revealed that ready-to-use therapeutic foods made with soya, maize and sorghum are more effective in treating anaemia and correcting iron deficiency among children with severe acute malnutrition than the standard milk-based formulation, and a much lower cost, paving the way for further research into alternative malnutrition treatments made up of widely available staples.

Thank you to our 2019 decision panellists

Emily Sloane, Cash and Markets Technical Advisor,
International Rescue Committee

Anju Malhotra, Special Advisor on Gender Strategy &
Measurement, UNICEF

Matthew Tilleard, Managing Partner & Co-Founder,
CrossBoundary

Sewu-Steve Tawia, Founder and CEO, Asime Partners

Yiping Goh, Partner, Quesst Ventures

Chris Locke, Founder, Caribou Digital

Isabel Guerrero, Lecturer, Harvard Kennedy School and
Executive Director of IMAGO Global Grassroots

Gilbert Guma, Director, Geithan Consults

Julie Cobill, Global Senior Sustainability Manager, Impact
Finance, Unilever

Rishi Khubchandani, CEO, Mukti Ventures Ltd

Mead Over, Senior Fellow Emeritus, Center for Global
Development

Sachindra Rudra, Independent Investor

Sabine Garbarino, Gender, Diversity & Inclusion Consultant

Sandip Sukhtankar, Associate Professor of Economics,
University of Virginia

Aude de Montesquiou, Director of Programs, Partnership for
Economic Inclusion, The World Bank

Bonnie Shepard, Evaluation & Planning Consultant

Lori Heise, Professor, Johns Hopkins Bloomberg School
of Public Health and Technical Director, Prevention
Colaborative

Kwame Akyeampong, Professor of International Education
and Development, University of Sussex

Tamar Manuelyan Atinc, Non-Resident Senior Fellow, Center
for Universal Education, Global Economy and Development,
Brookings Institution

Peter Colenso, Global Education, Health and Human
Development Consultant

Our people

Board

Kanini Mutooni – Board Chair
Jack Hawkins – Board Member
Jane Siebels – Board Member
Michael Anderson – Board Member
Salvatore Giambanco – Board Member
Santhosh Mathew – Board Member
Sarah Pearson – Board Member
Stefan Dercon – Board Member
Vel Gnanendran – Board Member

Executive

Alix Peterson Zwane PhD – Chief Executive Officer
Amélie Baudot – General Counsel and Company Secretary
Garreth Spillane – Chief of Staff
Gulzar Natarajan – Senior Managing Director
Ken Chomitz PhD – Chief Analytics Officer
Sarah Alexander – Senior Managing Director
Simon Jones – Chief Finance Officer

The Team

Andy Wales – Senior Advisor, Advance Fund
Avinash Mishra – Investment Director
Charlotte Ward – Managing Director
Christina Holzmüller – Policy Advisor
Dan Block – Investment Associate
Denise Chichester – Office Manager and Executive Assistant
Garry Mulgrew – HR Business Partner
Genevieve Reyes Llamzon – Associate General Counsel
George Serban – Group Financial Analyst
Georgiana-Maria Groza – Office Manager and Executive Assistant
Jocelyn Cheng – Senior Investment Director
Joseph Ssentongo – Senior Analytics Director
Joshua Gill – Analytics Director
Karyna Greenidge – Business Integrity Intern
Katie Carrasco – Environment, Social Responsibility and Governance Director

Lalit Kumar – Investment Director
Lily Steele – Investment Associate
Madeleine Eastwood – Head of Communications
Malcolm Spence – Investment Director
May Lew – Investment Associate
Melanie Potter – Legal Counsel
Nzinga Broussard – Senior Analytics Director
Patrick Riakporhe – Finance Manager, Financial Planning and Analysis
Rachael Nickerson – Operations Associate, Governance
Rachna Nag Chowdhuri – Senior Analytics Director
Richard Tandoh – Investment Associate
Simeon Bridgewater – Investment Director
Skylar Gray – Operations Associate
Taniya Bajaj – Investment Associate
Tom Mason – Group Financial Controller
Vineet Bewtra – Senior Advisor
Zach Johnstone – Senior Advisor, Policy and Communications

Our partners



Global Affairs
Canada

Affaires mondiales
Canada



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