The Intellecap Lighthouse

An Anthology of Ideas & Insights

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CONTENTS

OVERVIEW

Since 2002, Intellecap has been constantly striving to shape outcomes in emerging and underserved markets by developing key insights and new ideas.

The organization has constantly tried to push the envelope through its bold initiatives, seeking to build collaboration and thought leadership as part of the social impact discourse.

This year marks the 2nd edition of the Lighthouse, and there's been a concerted effort to bring more diverse, yet unique perspectives to the sectors Intellecap covers, be it Agriculture, Livelihoods, Financial Services, Energy & Climate Change, Healthcare, Sanitation, and most recently, Circular Apparel and Textiles.

The goal of this endeavour has always been to highlight and share the most relevant thought pieces with our external stakeholders, in order to drive across sustainable solutions that bring the collective a step closer towards achieving the SDG's, as set forth by the United Nations.

Some of this year's published pieces cover the significance of gender lens investing across key sectors, measures to strengthen India's overburdened healthcare system, studying impact investing through its multiple facets, the emergence of circularity in the Indian textile and apparel industry, among others.

This compilation of knowledge pieces has contributions featured in some of the most prestigious media publications, and bears testament to their importance and contemporary nature in these present times.

These are also times of unprecedented uncertainty that we live in, and the recent Covid-19 crisis offers all of humanity an opportunity to deeply introspect and reboot itself in the most prudent and innovative manner, in order to begin afresh and much stronger on the other side of this global epidemic.

It is our sincere hope that the Lighthouse offers you more than a glimpse into some of the most compelling geographies and sectors Intellecap serves as part of its key constituents, and aspires to continue serving in the years to come.

AGRICULTURE

WOMEN FEEDING AFRICA: INNOVATIVE BUSINESS SOLUTIONS TO CLOSE THE GENDER GAP IN AGRICULTURAL PRODUCTIVITY

By Agnes Makena and Racheal Wangari

Women make essential contribution to the development of agriculture and rural economies in emerging countries. On average, women make up 43% of the agricultural labor force in developing countries, ranging from 20% in Latin America to 50% in Eastern Asia and sub-Saharan Africa (SSA). Further, in SSA women contribute 60-80% of the region's food. Yet despite their importance to the sector, women continue to face specific constraints that limit their productivity. They have lower access to agricultural inputs and farming knowledge, earn lower returns on the inputs used, and face gender-based distortions in the product markets. Similarly, women are also disadvantaged by other gendered norms and practices, which result in fairly rigid and unequal divisions of labor both at the household level and the marketplace. Women's participation in the sector is thus limited to value chain nodes and crops with lower economic return than men. The resulting gender gaps in agricultural productivity can be substantial, ranging from 13% in Uganda and 16% in Tanzania, to 28% in Malawi.

So what would happen if we closed the gender gap in the sector and women accessed the same productivity resources as men? Research shows that yields could increase by 20-30%. In Rwanda for instance, closing the agricultural gender gap would lead to about a 19% increase in crop production, which would add $419 million to the country's GDP. Closing the gap could bring 180 million Africans out of hunger, and lift millions of families and communities out of poverty. As such, innovative solutions to the constraints facing women need to be explored. Below, we discuss a number of initiatives that are developing ground-breaking solutions to support the region's female farmers.

ENHANCING ACCESS TO CREDIT FOR WOMEN IN AGRICULTURE

Women's access to inputs – fertilizers, pesticides, hybrid seed, wage labour and machinery – is highly influenced by access to credit. But on a general level, the agricultural sector is considered high-risk for most traditional lenders; lending to the sector is thus highly collateralized and follows stringent underwriting processes. Despite the importance of the sector, lending has remained relatively low at only 2.4%, 3.6% and 3.7% of total loan portfolios in Cote d'Ivoire, Ghana and Nigeria, respectively. And this number is significantly less for women, due to their limited ownership of assets and land used as collateral, and to the lack of banking and credit data about female borrowers (only 27% of women in sub-Saharan Africa were estimated to have a financial institution account in 2017). In addition, financial decision-making powers in some countries continue to lie with men as a result of gender-biased and retrogressive regulations and women's low literacy levels.

Nevertheless, women do undertake various transactions, creating data points that can be leveraged to generate credit scores. To that end, a number of players are already working to digitize women's transactions. The Aga Khan Foundation, for example, has been working to digitize the operations of women savings groups in Tanzania. TruTrade purchases produce from women farmers in Kenya and Uganda and pays them directly through their mobile phones, which not only helps build a digital profile but also gives them security and control over their finances.

Some companies are even developing financial products customized for women. For example, Cherehani Africa is targeting rural women in Kenya through their "Kilimo (Swahili for agriculture) loans," which provide subsidized credit to finance high-yield seeds, pesticides, green house kits, high-breed dairy cattle, fisheries and poultry. The company also connects farmers to input suppliers through their online platform.

OPTIMIZING WOMEN FARMERS' AGRICULTURAL PRODUCTION

> Across the agricultural value chain, production is one of the most female-driven stages. However, women not only face the challenge of unequal access to a variety of productive inputs – fertilizer, seed, contemporary farm implements and paid labour – but also achieve unequal returns on those inputs, which limits their output.

To help address this, Agrinfo, a female-led aerial drone surveillance enterprise in Tanzania, is working with women in the country to identify their crop cultivation needs and provide solutions that will reduce pest infestation and diseases.

FACILITATING GENDER-RESPONSIVE EXTENSION SERVICES

Knowledge and training in farming techniques is also key to enhancing the productivity of the inputs used – and ultimately boosting the efficiency of the broader sector. Yet women farmers receive less than 10% of agriculture extension services, limiting their ability to apply good agronomic practices – and low literacy levels are considered a major barrier to their use of these services. There are several innovative approaches that aim to address this, however. For instance, Digital Green uses a video-based approach to deliver extension services to women in India and Ethiopia; and the Talking Book audio device (established through a partnership between Amplio, the Mennonite Economic Development Associates and Literacy Bridge Ghana) is enhancing the delivery of practical and easy-to-learn extension services in Ghana.

INCREASING POST-HARVEST VALUE FOR WOMEN FARMERS

Sub-Saharan Africa loses about 30-50% of its total agricultural produce post-harvest, due to poor storage and transportation techniques. In many parts of the continent, women play a significant role in post-harvest activities such as drying, storing, cleaning and processing food. However, efforts to reduce post-harvest losses have tended to focus on technological solutions that women may not have the opportunity or resources to utilize. In response, Claphijo Enterprises in Tanzania is helping women make use of surplus or unsold mangoes by providing cheap communal drying and dehydration facilities. In addition, some of this dried produce is bought from the women and sold under the company's brand, "Mama's Flavors."

CREATING MARKET AND VALUE CHAIN LINKAGES

Agricultural commodity trading has traditionally been male-dominated, with factors such as limited freedom of movement, and low access to infrastructure and information networks preventing women from participating in the marketing of produce, both locally and internationally. Women thus often rely on either their husbands or middlemen, who collect produce from their farms. Further, social norms require women to meet household food needs first before selling the surplus. And women also typically receive lower returns on their produce, because of gender biases in the product markets. All of these factors make it difficult for women to professionalize their farming work. To address these challenges, TruTrade provides information on prices and markets to women farmers in Kenya and Uganda, and directly links them to the buyers. GROOTS Kenya is also providing capacity building for women in Kenya, to help them exploit various market opportunities.

Though the solutions discussed above are exciting, for any sector to thrive, this sort of strengthening should be done at an ecosystem level – including both women farmers and development organizations. That's the focus of organizations like African Women in Agricultural Research and Development (AWARD), whose Gender in Agribusiness Investments programme incubates innovations and enterprises built with the intention of helping to bridge the gender gap in African agriculture. It's encouraging to see the emergence of these – and other – innovative organizations focused on supporting women farmers in sub-Saharan Africa. Their work promises to have a major impact on the continent.

Agnes Makena is an Associate at Intellecap
Racheal W Nduta is a Manager at Intellecap

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CIRCULAR APPAREL

IS THE INDIAN TEXTILE AND APPAREL INDUSTRY REINVENTING ITSELF?

By Stefanie Bauer-Vemuri and Divya Jagasia

With rising awareness of fast fashion and its impact on the environment, brands and manufacturers are willing to make a shift to circularity. But what does this mean and what steps are being taken towards it?

India feels the adverse social and environmental impact of 'fast fashion'; however, this may change soon.

India is a global manufacturing hub for textiles and apparel, coping with growing international and domestic demand. The global textiles market is projected to reach $1.3 trillion by 2025. Similarly, the domestic market for apparel is estimated to reach $59.3 billion by 2022 and that for textiles to grow to $223 billion by 2021. The industry is also critical in terms of income and employment generation, contributing to 5 percent of India's current GDP.

Yet, there is a serious cause for concern.

60 percent of Indian textiles are cotton based, and cotton cultivation consumes 25 percent of the world's pesticides. The wet processing of textiles generates an enormous quantity of waste sludge and chemically polluted waters. In addition, textile is the third biggest contributor of dry waste in most Indian states.

However, with rising awareness of these challenges, globally and in the Indian context, brands and manufacturers are willing to make a shift to circularity. But what does this mean and what steps are being taken towards it?

INDIAN BRANDS, MANUFACTURERS AND RETAILERS ARE INCREASINGLY WILLING TO JOIN THE GLOBAL CIRCULARITY MOVEMENT

A new level of ambition among global industry leaders is preparing for the end of 'fast fashion'. Tragedies like Rana Plaza in Bangladesh in 2013, where over 1,100 factory workers died, have raised global awareness. An increasing number of consumers are also pushing for change with their buying behaviour.

Hence, forward-looking industry players are preparing themselves for 'self-disruption' to build a 'Circular Fashion Industry' globally. This would mean building a fashion industry that can phase out substances of concern, increase clothing utilisation, improve recycling and efficiently use resources, according to the New Textiles Economy report by the Ellen MacArthur Foundation. This trend has led to an increasing number of industry-led initiatives such as the Sustainable Apparel Coalition, a group of leading brands, retailers, manufacturers, non-governmental organisations, academic experts, and government organisations who developed the Higg Index.

Simultaneously for the Indian industry, the local environmental challenges coupled with a globally dispersed value chain embracing circularity, has brought them to the brink of circular innovation. Hence, organisations have started experimenting and innovating towards the circular textile economy goals.

EMBRACING INNOVATION IS FUNDAMENTAL TO MAKING THIS TRANSITION

Indian corporations committing to circularity have begun to view startups as inspiration for new technologies and business practices. India has also become a hotbed for circular startups, where innovations range from alternative materials to innovative retail models. Mumbai based Boheco is trying to reduce and replace the use of cotton in textiles with hemp fiber, while Chennai based Trustrace is using blockchain technology to improve transparency and traceability in the supply chain. Lionise and Kiabza are two startups innovating with new retail models of rental and second-hand clothing respectively. These innovative enterprises, along with others, have had a significant impact on the circularity agenda already.

Corporate-startup partnerships are becoming more commonplace as both stakeholders begin to see the benefits of collaboration. While corporations require large-scale organisational innovation to make an impact, startups are agile and can respond to challenges with individual or small scale innovation.

EARLY MOVERS IN THE INDIAN FASHION INDUSTRY ARE ALREADY TAKING ACTIVE STEPS TO ENGAGE WITH A POOL OF CIRCULAR INNOVATORS

A consensus is emerging that to make an impact on the circularity agenda, it is essential to accelerate collaboration between corporations and startups. Enablers having access to entrepreneurs and other innovation pools are identifying and driving 'unlikely alliances' between the two.

This is a strong indication that the textile industry is beginning to embrace the circular economy through serious intent and not just an ephemeral sentiment. The movement is set to remarkably influence and shape the core value system of the industry over the coming years.

Stefanie Bauer is Director of the Circular Apparel Innovation Factory (CAIF)

Divya Jagasia is a Senior Associate at Intellecap

This article first appeared in ***Forbes India***

REFLECTIONS FROM THE LAKME FASHION WEEK 2019 IN MUMBAI

By Stefanie Bauer-Vemuri

The Lakme Fashion Week 2019, in Mumbai, marked the beginning of a new chapter in India's textile and apparel industry.

1. FASHION BEYOND THE RUNWAY

It was only our second time at Lakmé Fashion Week , but as we are working with industry partners to transition towards more circular business practices, for us, the 2019 event opened a new chapter for LFW and the sustainable fashion agenda in India. Congrats to IMG Reliance and its partners for creating not only a platform for showcasing the latest fashion trends on the runway, but also a space for discourse, collaboration, and innovation.

Alongside the glamour of the fashion shows, a number of parallel events engaged stakeholders from across the industry in conversations around how to change the face of the industry and decrease its negative environmental and social footprints.

Given India's position as a leading manufacturing and emerging consumption hub globally, the question of sustainability looms large on the sector: The Indian textile and apparel sector is one of the most polluting and characterized by multiple social inequities. Globally, the production of textiles results in the creation of 1.2 billion tonnes of greenhouse gases each year; the industry is the world's second largest polluter, and estimates indicate its contribution to global climate change is peaking at 8.1%. The Indian textile industry is a major contributor to waste and pollution with nearly 5% of all landfill space being taken up by textile waste and 20% of all fresh-water pollution being made by textile treatment and dyeing plants.

Recognizing this need for a disruption of the industry, this LFW edition stimulated the debate on what is needed to make that transition happen.

2. INNOVATION BEYOND DESIGN

At the core of this conversation was the need for innovation across the supply chain: While brands and designers have traditionally been the key audience at LFW, this edition saw a lot more participation of innovators across the supply chain and the broader innovation ecosystem. In a first of its kind event, the "Change Makers Showcase" jointly organized by Circular Design Challenge by IMG Reliance, R Elan and its partners and Circular Apparel Innovation Factory, six innovative enterprises presented their solutions for making the fashion industry more sustainable and circular:

- **Canva Fibre Labs** by Shikha Shah, an alternative fiber and a material science company that uses a proprietary technology to convert agricultural waste into textile fibers that are environmentally, socially, and economically superior.
- **Greensole** by Shriyans Bhandari, an enterprise focused on recycling discarded shoes into comfortable footwear, and keeping waste away from landfills. Greensole upcycles and retails footwear to further create a self-sustaining venture and works with large corporates to handle their waste footwear.
- **JSP ENviro** Pvt. Ltd. by V.T. Fidal Kumar, a technology company that has created a revolutionary product which conserves and treats effluents/wastewater

while maintaining energy efficiency. Their Microbial Fuel Cell innovation is an effluent treatment technology that can generate electricity from processed effluents and treat the water for reuse.

- **Reverse Resources** by Ann Runnel, an enterprise that maps and traces textile leftovers from fabric and garment production to enable data sharing from the source of waste to recyclers and builds efficiency of waste management and trading through digitalisation and software as a service.
- **Saathi Eco Innovations** by Tarun Bothra, Saathi has developed a single platform technology to process different kinds of natural fibers into highly absorbent pulp that has multiple use-cases such as a 100% biodegradable and compostable sanitary pad made from banana fiber.
- **Stylumia** Intelligence Technology Pvt. Ltd. by Ganesh Subramanian, an enterprise with an ecosystem of SaaS products that aim to address the key challenges of overproduction, efficiency, and waste through a proprietary "Demand-Sensing" technology that uses big data at internet scale to efficiently decode consumer demand.

The enterprises presented their solutions to a panel comprising strategic investors who offered their support to the innovators: Priyanka Khanna, Lead – International Expansion, Fashion for Good; Kartik Desai, Executive Director, Asha Impact; Divya Gupta, Aavishkaar Venture Management Services; Erik Karlsson, Head of H&M Co:Lab; Radhika Nath – Executive Director, Mahindra Retail, and Renata Lok Dessallien, Resident Coordinator of the UN in India.

> The event highlighted that building a new fashion economy must necessarily involves the larger innovation ecosystem. This certainly represents a new era for India's fashion industry. As Gautam Vazirani, Head of Sustainable Fashion at IMG Reliance, said, perfectly capturing this transformation: "We have never had a 9 am event at Fashion Week, and that too with a full house!"

Bringing innovative business models to the forefront was also the focus of the Masterclass on Circular Fashion, hosted by Fashion for Good as a lead-up activity to their 2020 Fashion for Good South Asia Program. A number of success stories illustrated how innovations are transforming the fashion value chain and outlined the need for the fashion industry to shift towards a more regenerative and restorative system to overcome its environmental and social impacts.

3. A NEW FASHION AGENDA FOR INDIA

We are confident that the conversations at LFW will translate into action on the ground, as 16 of the largest

industry players made a commitment under the newly launched project SU.RE to set a sustainable pathway for the Indian fashion industry.

Launched by Union Minister for Textiles, Smt. Smriti Zubin Irani at Sustainable Fashion Day on 22nd August, 2019, SU.RE stands for 'Sustainable Resolution' and marks the first holistic effort of the industry to move towards fashion that contributes to a clean environment. The signatories to the pledge for project SU.RE are sixteen of India's top fashion and retail brands and CMAI members such as Future Group, Shopper's Stop, Aditya Birla Retail, Arvind Brands, Lifestyle, Max, Raymond, House of Anita Dongre, W, Biba, Westside, 109F, Spykar, Levi's, Bestsellers, and Trends among others, who signed a five-point Sustainable Resolution:

1. Develop a complete understanding of the environmental impact of the garments being currently produced by our brand.
2. Develop a sustainable sourcing policy for consistently prioritizing and utilizing certified raw materials that have a positive impact on the environment.
3. Make the right decisions about how, where, and what we source across the value chain by selecting sustainable and renewable materials and processes and ensuring their traceability.
4. Communicate our sustainability initiatives effectively to consumers and media through our online and physical stores, product tags/labeling, social media, advertising campaigns and events.
5. Through these actions, shift a significant percentage of our supply chain to a sustainable chain by the year 2025, addressing critical global issues such as climate change, contributing to the UN Sustainable Development Goals, and building a world that is safe for the future generations, as an acceptance of a responsibility we all share.

We at Intellecap through the **Circular Apparel Innovation Factory** and our partners The **DOEN Foundation and Aditya Birla Fashion and Retail** are committed to supporting the sector by building capabilities and the ecosystem that is needed to make this transition towards a circular textile and apparel industry become a reality.

Stefanie Bauer is Director of the Circular Apparel Innovation Factory (CAIF)

This article first appeared in ***LinkedIn***

CIRCULAR APPAREL INNOVATION AND ITS WAY AHEAD

By Stefanie Bauer-Vemuri and Siddharth Lulla

Credit: Business Standard

A transition towards a circular textile & fashion industry in India

The environmental and ethical issues surrounding fashion are no secret, and have only escalated in recent years. The world now consumes in excess of 100 billion pieces of clothing a year, according to a report by McKinsey. As a whole, the industry is responsible for 92 million tons of waste dumped in landfills every year. Meanwhile, a 2017 report found 35 per cent of microplastic pollution comes from washing synthetic textiles—much of which is produced by fast fashion brands.

India's textile and apparel industry is one of the world's largest, and is a major contributor to global textile and apparel production. Its current estimated worth is USD 150 billion, and it is expected to grow to USD 250 billion by the close of 2019. The industry currently employs more than 45 million people - and hence is also the second largest employer in India - it contributes to more than 15% of the country's export earnings, and to almost 7% of the country's industry output (India Brand Equity Foundation, 2018). Given India's position as a leading manufacturing and consumption hub globally, there is a need to re-think the way the industry operates, while ensuring profitability in the long term.

Although numbers indicate a positive trend in terms of growth of the Indian apparel and fashion industry, the question of sustainability looms large on the sector. The Indian textile and apparel sector is one of the most polluting and is scattered with multiple social inequities among other issues. The production of textiles results in the creation of 1.2 billion tonnes of greenhouse gases each year; the industry is the world's second largest polluter, and estimates indicate its contribution to global climate change is peaking at 8.1% (Ellen MacArthur Foundation, 2017). More than 80% of textile waste generated is sent to landfills or incinerated instead of being recycled or reprocessed. At the same time, India is increasingly witnessing pressure to match supply and demand due to resource constraints, e.g. in the area of cotton. Hence there is a need to 'self-disrupt' existing practices and transition on a more circular pathway

Global pioneering brands like Zara, Uniqlo, H&M, Mango, Patagonia have made public commitments to sustainability and circularity

Zara	100 per cent of cotton, linen and polyester to be sustainable by 2025 Complete supply chain traceability and ban on exploitative labour practices 100% of Zara stores to be eco-efficient by end 2019
H&M	100 per cent of materials and products to be recycled or sustainably sourced by 2030 100% fair & equal supply chain in terms of wages, jobs, opportunities for the entire production line
Uniqlo	Reduce the use of single-use plastic by 85 per cent by the end of 2020 Improve and strengthen lives of workers across the supply chain through programs and training
Asos	Train design and product teams about circular design by 2020, and launch recycling programmes in UK and Germany

Source : vogue.in

Innovations in the apparel sector have often been created through unusual and collaborative alliances between various ecosystem actors thus far

- Adidas has planned to create 11 million pairs of shoes from recycled plastic waste. To achieve this, they are collaborating with Parley – a global environmental organisation to collect plastic waste from beaches.
- The Make Fashion Circular initiative, led by the Ellen McArthur Foundation, brings together fashion giants such as Nike, GAP, and Burberry to adopt more resource-efficient business models and tackle waste
- Stella McCartney has enabled a partnership with The RealReal to prevent clothes from going into waste piles. Together, they have created a new business model to retail pre-owned luxury items
- Brands such as Filippa K, have collaborated with organisations such as Repack who provide alternative packaging to create incentives & encourage consumers to close the packaging loop

In India the textile and apparel ecosystem lacks behind in terms of action on the ground. However leading Indian corporates and manufacturers are paving the path for a circular shift. Larger domestic conglomerates like Aditya Birla Fashion & Retail, Arvind Ltd., and Reliance Industries Ltd. havejoined international initiatives such as the Sustainable Apparel Coalition, Fashion for Good, and others. They have also invested significantly in developing sustainable fabrics either from alternative sources or recycled polyester, energy efficient processes and well as researching solutions for post consumer waste.

> "Sustainability will be at the center of innovation in the fashion industry in the coming decade and while tools and technologies will change, it is intellectual capital that will hold ABFRL in good stead."

- Ashish Dikshit, MD, Aditya Birla Fashion & Retail

> "We are committed to becoming a leader in the emerging circular economy"

- Mukesh Ambani, CMD, Reliance Industries Ltd

Good intentions need to be turned into collective and industry-wide efforts to re-imagine the future of the textile and apparel industry in India. Recently the Union Minister of Textiles, Smriti Zubin Irani launched project SU.RE – Sustainable Resolution – for sustainable fashion at the Lakme Fashion Winter / Festive 2019, in Mumbai. The project was launched in association with Clothing Manufacturers Association of India (CMAI), IMG Reliance and United Nations in India. The project is a commitment by India's apparel industry to set a sustainable pathway for the Indian fashion industry. Top 16 apparel brands with a combined industry value of Rs 30,000 crore are signatories to the project which include Future Group, Shoppers Stop, Aditya Birla Retail, Arvind Brands, Lifestyle, Max, Raymond, House of Anita Dongre, W, Biba, Westside, 109F, Spykar, Levi's, Bestsellers and Trends. The signatories have pledged to source/ utilize a substantial portion of their total consumption using sustainable raw materials and processes, by the year 2025.

Birla Cellulose, one of the global leaders in Man Made Cellulose Fibre (MMCF) has achieved breakthrough in manufacturing viscose fibre using pre consumer cotton waste. This new line of viscose is already being adopted and is available for sale to interested brands and retailers. This innovation has the distinction of Recycled Claim Standard (RCS) and portrays Birla Cellulose 's commitment to a more circular economy. This innovation has been done through in house R&D and uses minimum 20% pre consumer industrial waster. As part of its commitment to circularity and sustainability initiatives Birla Cellulose id working on further developing products made from more than 50% industrial fabric waste as well as post consumer clothing as inputs by 2020.

Reliance industries (RIL), which has its roots in the polyester business has started converting used plastic bottles into textiles with some help from fashion brands and designers. The company is already processing two billion used PET bottles as of 2019 and plans to scale it up to six billion in two years. In order to make 'sustainable clothing' affordable and accessible RIL has launched an umbrella brand, R|Elan for eco-friendly fibre made from used plastic. The manufacturing process is aimed at reducing carbon footprint at every stage by using bio fuels and pre dyed fibres, which eliminate the water and chemical discharge from wet dyeing.

Indian performance wear brand Alcis Sports and designer Narendra Kumar have joined hands to launch a collection of sustainable gym and work wear under the label 'Alcis X Nari' using R|Elan fibre. RIL and Kumar are also working on ways to further recycle these products once used by consumers so that they don't land up in landfills.

Arvind Ltd has also been very procative in its circularity initiative and has identified elimination of wastage in water as one of its key circularity goals. Arvind has collaborated with GAP to save 2 billion litres of water and be a zero fresh water organisation by 2022. Other areas Arvind Ltd is focusing on include textile to textile recycling , scalable solutions for natural dyes and non-polluting chemical dyes as well as use of renewable energy in its manufactruing process. Arvind Ltd has the largest installed rooftop solar facility of 19 MW by any manufacturer in India.

India has the political will to advance a circular shift. With the Indian government banning the use of plastic bags across numerous states, the increasing chatter around

global warming and campaigns against dumping in the oceans, the textile industry in India is taking cue and is shifting towards eco-friendly initiatives.

Conversations with leading players in the industry reveal sustainable solutions in Fibre, Yarn & Alternative fabrics, Alternative dyes & finishes, biodegradable packaging and innovations to recycle post consumer waste as key areas of interest in their circularity agenda. There are a number of "shovel ready" projects in India that are ready to scale – but lack access to the capital.

EMBRACING INNOVATION IS FUNDAMENTAL TO MAKING THIS TRANSITION

> Indian corporations committing to circularity have begun to view startups as inspiration for new technologies and business practices. India has also become a hotbed for circular startups, where innovations range from alternative materials to innovative retail models.

Mumbai based Boheco and Ahmedabad based Fibre Labs are trying to reduce and replace the use of cotton in textiles with hemp fiber, while Chennai based Trustrace is using blockchain technology to improve transparency and traceability in the supply chain. Flyrobe and Kiabza are two startups innovating with new retail models of rental and second-hand clothing respectively. These innovative enterprises, along with others, have had a significant impact on the circularity agenda already.

Corporate-startup partnerships are becoming more commonplace as both stakeholders begin to see the benefits of collaboration. While corporations require large-scale organisational innovation to make an impact, startups are agile and can respond to challenges with individual or small scale innovation. Several small-scale retail brands such as Akira Ming, Doodlage, Ka Sha, Bodhi Tree and Yarn Glory have also come up in the market, which manufacture garments in the organic way.

Acknowledging that a transition towards a circular apparel and textile sector in India requires a systems approach that facilitates collaboration, the Circular Apparel Innovation Factory (CAIF) was launched in 2018 with the support of The DOEN Foundation and with Aditya Birla Fashion and Retail (ABFRL) as corporate anchor partner. The initiative was created to test a new collaboration model between value chain stakeholders and startups and innovators, who offer solutions to decrease the amount of harmful substances in production, reduce the amount of waste generated, increase usage of clothing, boost recycling, or increase the use of renewable inputs.

After 18 months of operations, CAIF has generated the following insights about opportunities in the circular fashion space in India:

1. Industry awareness is low about opportunities that come with certain new product, processes, or business models. There is a need for interventions that help value chain actors understand the need for self-disruption, develop collaborative projects and together design the future.

2. Discovery of solution is major bottleneck for value chain actors. While solutions exist, there is an information asymmetry on both sides that prevents collaborations to happen. There is a need to bridge the discovery gap.

3. Action on the ground is limited. While there are lot of good intentions, there is limited experimentation and

implementation, partly due to ongoing pressure to maintain competitiveness. There is a need for a pre-competitive platform that facilitates action.

4. Scalable solutions are rare. While startups and innovators have emerged that find answers to circularity challenges in the textile and apparel value chain, many operate at a small scale. There is a need to help circular startups & innovators on their growth path.

5. A precompetitive industry platform is absent to co-develop and invest in solutions, create a common language and shape the sector together is a main challenge. There is a need to create an opportunity for the industry to develop solutions together, share knowledge and work collectively towards a transition.

A transition towards a circular textile & fashion industry in India would require -

- Value chain actors like brands, retailers and manufacturers to play a critical role as research and development partners or buyers
- Strategic investors to provide important scaling pathways for circular innovations
- Enterprises that are pioneering new innovations to offer the agility that large value chain players need to innovate and push the innovation boundary
- Patience, flexibility and support from large brands, retailers and manufacturers to successfully integrate enterprise-driven innovations into their value chain

Hence to summarize we see that globally apparel brands are taking strong initiatives to become circular and have set aggressive sustainability goals. Apart from collaborative efforts between apparel brands, manufacturers and sustainability initiatives we are also seeing the advent of circularity focused funds at an international level such as the Good Fashion Fund, H&M Collab and the Textile Innovation Fund.

In India however adoption of circularity is still at a nascent stage wherein leading Indian retailers are recognizing the need not only to keep in line with their global counterparts but also as a sincere effort to reduce the detrimental impact their product processes and packaging solutions cause to the environment. In order to move the needle in the Indian apparel industry there is an imperative need to build awareness, create market infrastructure and facilitate connections between enterprises and large brands, retailers and manufacturers. A special emphasis on innovation, could result in a new textiles economy that produces substantially better economic, environmental, and societal outcomes.

Stefanie Bauer is Director of the Circular Apparel Innovation Factory (CAIF)

Siddharth Lulla is a Consultant with Circular Apparel Innovation Factory (CAIF) at Intellecap

COME TOGETHER, FASHIONABLY — THE TEXTILE INDUSTRY NEEDS COLLABORATIVE ACTION TO GO CIRCULAR & BECOME FASHIONABLE AGAIN

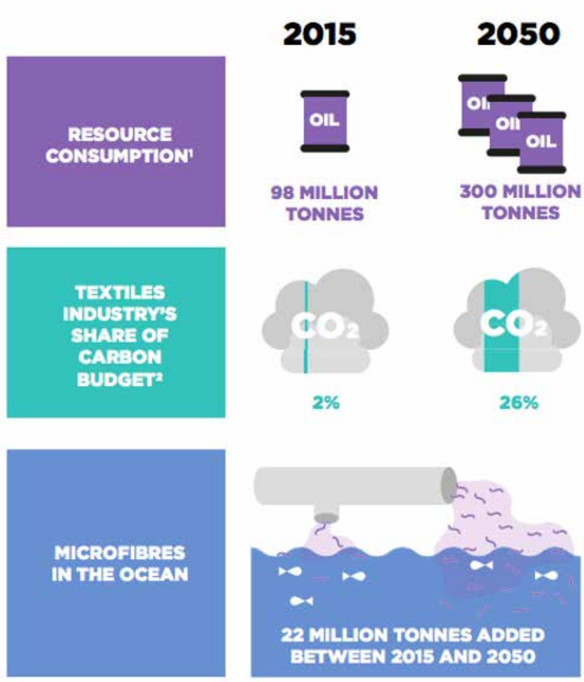
By Stefanie Bauer-Vemuri and Tanushri Shukla

Credit: Photo by Artem Beliaikin from Pexels

In most Indian homes, it is common to see a kitchen wipe that was once an old t-shirt, or a mop that used to be a sari. This used to be called "jugaad" — today it's called "sustainability". And it seems Indians have had it right all along, as we see the fashion and textile industries coming under a high degree of scrutiny for their waste problem.

India, along with most of Asia, has traditionally been a manufacturing hub for the fashion industry. Today, it is transforming into a hub of consumption. As small-volume boutiques and made-to-order tailoring shops give way to department stores and malls with hundreds of styles changing frequently, fashion in the subcontinent has gone from slow and handmade to "fast" as in "fast food". Now, fashions don't change with the season — they change every week.

As the quantity of apparel in the market increases, so does the pile of discarded clothing and its impact on both the environment and society at large. It's clear that mops and kitchen wipes are no longer the solution.



Credit: Click here

UNFASHIONABLE PROBLEMS

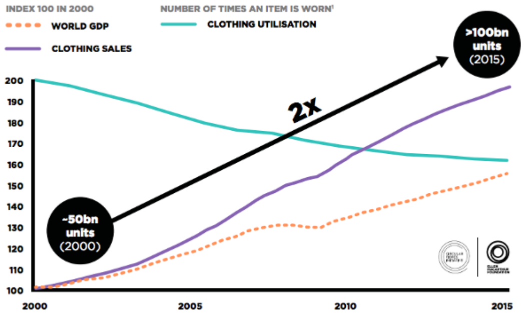
According to the Ellen Macarthur Foundation, a research body creating awareness about the circular economy, every second, somewhere in the world, the equivalent of one truck full of textile waste is landfilled or incinerated. Given that India is both one of the world's largest exporters of textile as well as the recipient of a large bulk of the world's discarded garments, this problem hits close to home.

Fashion is also causing an environmental crisis: nearly 20% of global industrial wastewater is now known to come from the manufacturing and dyeing of garments using chemical processes. Clothes release half a million tonnes of microfibres into the ocean every year, and cotton, one of the world's most consumed textiles, is a thirsty crop — according to The Guardian, the water consumed to grow India's cotton exports in just the year 2013 would be enough to supply 85% of the country's population with 100 litres of water every day for a year.

As one of the world's largest exporters of textile in the world, India employs close to 12 million people in the tailoring and manufacturing of garments and accessories. Almost 80% of garment workers are women, most of whom work on less than minimum wages, with no legal contracts, in difficult and exploitative conditions. Fashion is a gendered industry where women are both its highest paid models and designers as well as its lowest paid cutters and tailors.

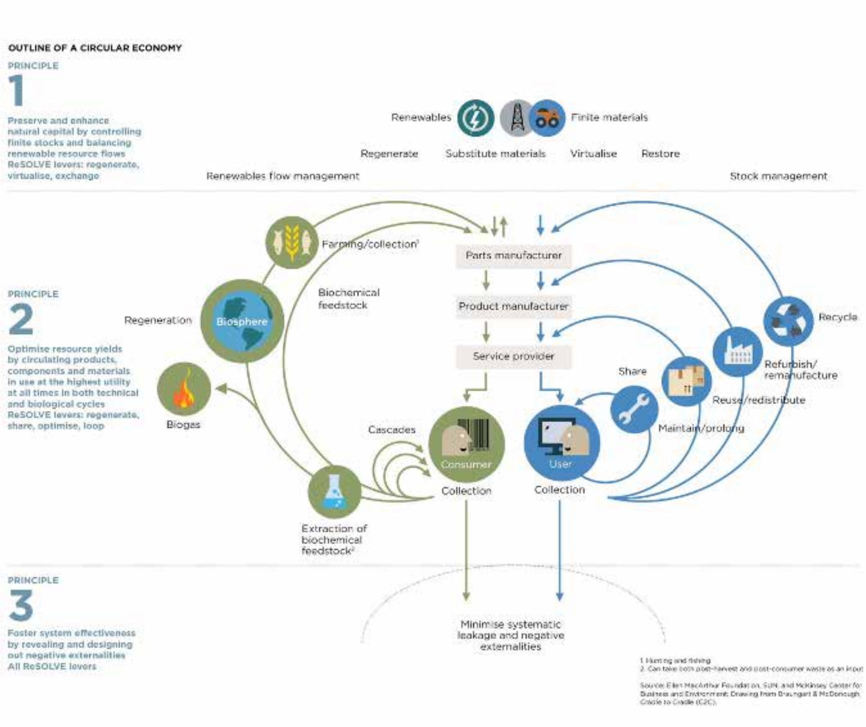
HOW CAN THE CIRCULAR ECONOMY FIX THIS?

The circular economy is the diametric opposite of the take-make-dispose model whose seeds lie in the industrial revolution. It aims to redesign this entire production system, based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. To this definition, it is critical to add aspects of labour rights and social inclusivity, especially in the Indian context.



Credit: *Click here*

Brands and stores used to consider their job done the minute a customer walked out of their premises with their purchase. Today, brands are increasingly realising that their responsibility lies throughout the life cycle of their products and must necessarily include a plan for what happens when the garment is discarded. In an ideal circular economy, waste comes back as raw material for the creation of new products, thereby creating a virtuous cycle that minimises its environmental impact.



Credit: *Click here*

ENTER THE INNOVATORS

Global scrutiny, a rising consciousness among new generations of consumers, and growing concerns around pollution and climate change are driving change. The fashion industry is today witnessing a paradigm shift, and we need look no further than the entrepreneurial ecosystem to see how. From technology solutions to creative uses of waste, start-ups and enterprises are changing the rules of the game.

THE ADOPTERS

Global forums like the Copenhagen Fashion Summit's 2020 Commitment, and, closer home, IMG's Project SU.RE recently launched on Sustainable Fashion Day at Lakme Fashion Week, are clear indicators of the mainstreamification of sustainability and circularity. These bodies have worked with corporates to identify what their sustainability goals should be, and have received tremendous uptake from some of the industry's largest players. It is now time to translate intent into action.

CORPORATES GOING CIRCULAR

RElan is a Reliance initiative creating eco-friendly high-performing fabrics

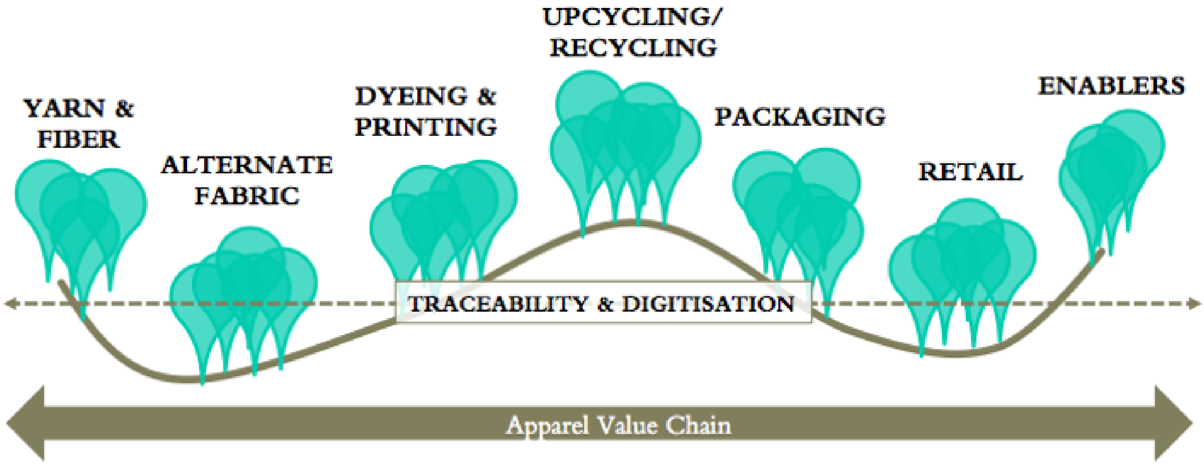
Birla Cellulose is a family of sustainably sourced, closed-loop textiles.

Arvind Lifestyle has a number of sustainability initiatives, including recycling denim of Flying Machine, one of their marquee brands.

Anita Dongre is a sustainability champion, with an eco-friendly manufacturing unit and a focus on rural women's livelihoods.

THE CASE FOR COLLABORATION

From packaging and labour rights to landfills and ocean waste, the impact of the clothes we buy extends far and wide. The fashion industry itself consists of multiple stakeholders, spanning geographies and sectors, both



Credit: Circular Apparel Innovation Factory Report

organized and disorganized. While small, incremental steps do help, it is no longer sufficient for change to occur at the level of individual brands or factories. What is needed is an industry-wide transformation, which can come only from pre-competitive collaboration and co-investment, involving the many stakeholders in this complex value chain.

For innovations to be adopted by large corporates and scaled, the industry needs a framework to enable the process of discovery, sourcing, and prototyping — the ideas bubbling in research labs, the small enterprises, the independent innovators — that is where the most innovative solutions come from, and where the most funding and attention is required. Removing barriers between enterprises and major brands requires intervention through both online and offline channels.

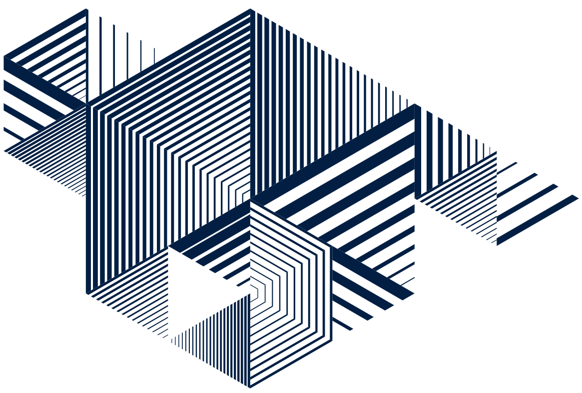
A large part of the Indian textile industry's workforce is disorganized, meaning that sustainability initiatives need to be adapted to our particular cultural and socio-economic context. The solutions we seek need to be more inclusive, lean, and adaptable. The need of the hour is a think tank with representation from government, industry, and entrepreneurs to generate creative ideas for our unique issues.

Even as one eye remains on implementation, the other needs to look constantly at the larger picture — at the policy changes needed at a government level, the industry-wide practices that need to be questioned, and the mandates that need to be campaigned and enforced. Businesses need to join hands and arrive at a consensus on policies around taxation, labour rights, waste management, and the myriad issues that plague the fashion industry.

No single entity can make the industry as a whole circular — it is not about government or entrepreneurs but about involving both along with other stakeholders. The commitment to circularity and sustainability is simply the starting point. It is time for the fashion industry to shed its image of the big bad wolf in a little black dress and join hands like never before.

Stefanie Bauer is Director of the Circular Apparel innovation Factory (CAIF)

Tanushri Shukla is a Senior Associate at Intellecap



ENERGY

BUILDING AN ECOSYSTEM TO SAVE AN ECOSYSTEM: HOW FACILITATING CLIMATE FINANCE FOR MSMES CAN FIGHT GLOBAL CLIMATE CHANGE

By Santosh Kumar Singh and Ankit Gupta

For any micro, small and medium enterprises (MSMEs) or start-ups working on climate solutions, “climate finance” is a buzzword. But it has become increasingly clear that we need to reimagine the entire ecosystem if we want to get MSMEs to actively and effectively engage in the delivery of climate solutions – as well as saving them from the negative impacts of climate change. (Yes, the MSME sector is quite vulnerable to climate change and extreme weather events.) So what’s the best way to effect this ecosystem-wide change? Let’s start by defining the terms of the discussion.

WHAT IS CLIMATE FINANCE?

Climate finance remains a bit cryptic to the majority of MSMEs and start-ups. There is no standard agreement about what types of finance qualify, and this leads to several issues in understanding, measuring, reporting and verifying it. The United Nations Framework Convention on Climate Change’s Climate Finance Flows Report offers the following definition: “Climate Finance aims at reducing emissions, and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impact.” This definition is quite comprehensive and could encompass a whole gamut of financial instruments. Yet most MSMEs are familiar with only a few such instruments, such as carbon credits, Certified Emission Reductions, grants, etc.

For the purposes of this article, let’s define climate finance as any national, transnational or local financing from public, private and alternative sources to support solutions addressing climate change mitigation and adaptation.

Climate finance may focus on significantly reducing carbon emissions (mitigation), or on adapting to the adverse effects of a changing climate (adaptation). Climate change mitigation includes the funding of projects focused on renewable energy, energy efficiency, forestry and land-use, sustainable urban transport, etc., while funding for adaptation is geared towards enhancing resilience to the impact of climate variability.

WHO ARE THE PROVIDERS AND HOW DO THEY WORK?

There is a huge gap between the demand for climate finance and its supply. According to the World Economic Forum, by 2020, a US $5.7 trillion investment in green infrastructure will be needed each year to support climate change mitigation and adaptation, mostly in the developing world. However, according to a Climate Policy Initiative report (2018), the total global expenditure on climate change mitigation and adaptation ranged from roughly just US $450-550 billion a year in 2016/2017.

> One of the biggest challenges in taking advantage of climate finance is its convoluted route. Climate finance flows from public, private, alternative or blended sources through national, regional and/or international channels.

Developed countries like Australia, Canada, the US, the UK and others have a mandate, as part of the Paris Agreement, to provide support to developing countries.

There are country-specific bilateral institutions such as DFAT, CIDA, GIZ, JICA and others which are responsible for ensuring the flow of climate finance to developing countries. These institutions provide capital to climate change-specific funds such as the Green Climate Fund, the Adaptation Fund and the Climate Investment Funds, among others, which are managed by multilateral institutions such as the World Bank and the UNDP.

These funds then appoint National Implementing Entities (NIEs) in developing countries, such as India's National Bank for Agriculture and Rural Development, Rwanda's Ministry of Environment and Namibia's Environmental Investment Fund, which are responsible for the disbursement and management of climate finance to MSMEs. MSMEs and other enterprises apply for funds from these NIEs, which follow a pre-determined process for awarding and transferring the funds.

WHY DO MSMEs NOT GET ACCESS TO CLIMATE FINANCE?

In spite of the availability of these resources, there are several impediments that prevent MSMEs from fully leveraging them. For instance:

- Limited communication between financial institutions and MSMEs results in a lack of awareness about climate finance opportunities for these enterprises.

- The complexity of applying for access to climate finance (especially the paperwork required) is a major challenge for MSMEs that lack an understanding of the procedures, eligibility requirements and reporting criteria involved.

- Climate finance also requires strong implementation and a solid track record, the absence of which makes it difficult for MSMEs to access this funding. The existing funding instruments and channels are not optimised for catering to the MSME sectors. For example, the Green Climate Fund requires that every dollar it contributes should leverage four dollars of commercial capital. Furthermore, many lenders expect a higher share of equity from MSMEs, as well as established credentials – and unfortunately, the majority of MSMEs struggle to meet these expectations. Also, MSMEs need more capacity building support and technical assistance grants, but due to their small project sizes, they find this support to be insufficient.

HOW TO SUPPORT THE FLOW OF CLIMATE FINANCE TO MSMEs?

There are several ways the global development community can help overcome these challenges and open new avenues to climate finance for MSMEs. To take just a few examples:

- There is a dire need for a dedicated ecosystem for enabling climate finance to the MSME sector. Financial institutions need to calibrate their offerings with a nuanced understanding of MSMEs' needs in different climate change sectors. Additionally, government institutions and policy makers need to make additional efforts to create a regulatory environment that's conducive to climate finance.

- A new mechanism for risk mitigation needs to be developed, in which risk is mitigated by development finance institutions and not left to be mitigated by the MSMEs, which do not have capacity. The newly launched Invest4Climate shows promise, but would benefit from a dedicated focus on MSMEs.

- The sector also needs simplified processes for ensuring a smooth flow of climate finance, and dedicated agencies for capacity building at the national as well as sub-national levels. Online resources and tools that help MSMEs to check their eligibility for different types of climate finance, and that explain how they can obtain it, could be a great value add.

If these measures are taken as part of a broader effort to boost the climate finance ecosystem, the benefits will be substantial – not just for MSMEs, but for both national economies and the global environment.

Santosh Singh is an Associate Partner at Intellecap

Ankit Gupta is a Manager at Intellecap

This article first appeared in ***Next Billion***

THE NEXT BIG THING : PROMISE OF BLOCKCHAIN IN THE RENEWABLE ENERGY SECTOR

By Santosh Kumar Singh and Ankit Gupta

Promise of Blockchain in the Renewable Energy Sector

The inherent features of blockchain technology (encrypting, distributed ledger and transaction verification without a central authority) can solve some of the major challenges in the renewable energy sector. A quick scan of blockchain technology usage highlights that it has immense potential in transforming the traditional energy generation/distribution operations as well as creating completely innovative offerings for the sector.

Blockchain has the ability to transform the climate action. In the Paris Climate Change Agreement, the government and private sectors have committed to put a cap on their carbon emissions. A mechanism is being proposed to facilitate trading of emission reductions. One of the core provisions of the Paris agreement is "no double counting of emission reductions". Blockchain and distributed ledger can reduce double counting, increase transparency and make the carbon trading process easier. Veridium Labs, in partnership with IBM, has already demonstrated the potential of blockchain in this aspect. There are several other solutions that can help in emission tracking, trading and facilitating carbon finance.

Firms have used blockchain, smart contracts and smart metering to transform their billing operations, grid and network management, and develop smart-grid solutions, but it is the startups and new players that are driving innovation in this space.

Start-ups are leading the way. They are promoting peer-to-peer energy trading, pay-as-you-go offerings, smart home energy systems, machine learning and artificial intelligence learning based customised products based on the energy consumption profile. In distributed solar power, blockchain technology has proved to be a boon. For example, the Brooklyn Microgrid project developed a small-scale community where users could generate and store power via solar panels, and trade with other community members. Eloncity has developed an architecture that offers a storage, exchange and usage network directly on blockchain without any power companies. The company's system uses smart energy storage batteries alongside solar panels to allow users to create, use and store their own energy. Another enterprise, Power Ledger, allows users that have installed solar panels to sell their excess power at prices determined by them. SolarCoin, one of the oldest blockchain energy projects, offers tokens to users that generate solar electricity to promote adoption and usage. The SolarCoin Foundation gives energy producers

> Blockchain is a relatively new technology, but it has already permeated in the clean/ renewable energy space. There are more than 100 young start-ups across the globe leveraging blockchain technology. They have raised more than $320 billion during 2017-18. While start-ups are driving innovation in business models and creating new use-cases, big energy companies such as Siemens, GE and Kansai Electric Power have also started investing in blockchain technology.

blockchain-based digital tokens at the rate of one SolarCoin per MWh of solar energy produced. SolarCoin is spendable and tradable just like cryptocurrency. However, the big stories in these start-ups are now dictating a new era of renewable energy generation and distribution and forcing the big businesses to rethink their operations and strategy.

We have a long way to go. There are some inherent technical challenges in this technology (scalability, immutability, security and inefficient technological design, etc.) but for adoption in the energy sector, the key challenge is the regulatory and policy framework. Blockchain is still seen as emerging and experimental, but its increasing implementation, even at a small scale, will gradually build confidence in this technology for mainstream adoption.

Santosh Singh is an Associate Partner at Intellecap

Ankit Gupta is a Manager at Intellecap

This article first appeared in ***Renewable Watch***

FINANCIAL SERVICES

BRINGING DIGITAL FINANCIAL INCLUSION TO WOMEN: THE IMPACT OF AN INTEGRATED ECOSYSTEM APPROACH

By Ankur Seth and Neha Kumar

Despite global initiatives aimed at catalyzing formal banking and increasing the usage of digital channels, almost 1 billion women still remain excluded from the global financial economy.

Close to 14% of total establishments in India are managed by women, and these businesses provide employment to roughly 13.5 million people. But while the Indian economy has grown at an accelerated pace in the past decade, the workforce participation of women has seen a decline from 35% in 2005 to 26% in 2018. This clearly indicates that either the growth in the economic empowerment of women has not been in sync with the economic growth of the country, or women are not included in the formal economy, despite performing many economic activities. The global statistics reveal a similar issue, with 56% of the unbanked being women and just 41% of women being part of the work force.

In recent years, there have been a slew of global initiatives introduced to integrate women into the formal economy, but the comprehensive financial inclusion of women is still a distant dream. Further complicating this challenge is the fact that just having a bank account is not sufficient to consider women financially included. In India, almost half of all accounts are dormant and don't provide the real benefits that digital financial services (DFS) can bring, such as access to credit, reductions in cash risk due to the use of mobile money transfers and savings, increases in disposable income, and better personal financial management.

It's clear that financial inclusion for women cannot be attained by simply opening them an account, or giving them access to a phone and internet. It will entail a cultural shift that will involve the men in the house, the local community and catalytic partnerships.

THE BARRIERS TO WOMEN'S FINANCIAL INCLUSION

Traditionally, women in rural communities are highly reliant on men to make financial decisions for the household. In most cases, the men are the owners of a family's mobile phones – and even when women have bank accounts, the men generally manage these accounts. Since women often do not have visibility of the family's income and expenses, they are unable to contribute to the financial management of the household.

> Women's transition into financial inclusion is held back by the psychological barriers they face while accessing DFS. These barriers include reluctance to own a mobile phone, self-doubt while using a smartphone, hesitation in attending training events due to the unequal gender ratio at the training centers, and a broader fear of technology. These obstacles are amplified by the absence of a local support system, in the form of female change agents or women support groups led by more progressive members of the community.

This exclusion means that where women are working in rural geographies, their incomes are rarely credited in their bank accounts. Even if these incomes get credited, it can be intimidating for people in rural communities – especially women – to visit the bank, stand in queues and complete long application forms. The foundation for financial inclusion stands on three pillars – access, trust and comfort. But this foundation cannot be built through a single government policy or a development agency in isolation. Instead, it will entail a range of partnerships across technology, banking, the rural-focused private sector and government departments.

RURAL VALUE CHAINS CAN CREATE AN INTEGRATED DIGITAL FINANCIAL ECOSYSTEM FOR WOMEN

> Unless women reliably find value in using their bank accounts, no initiative can spur their financial inclusion. The active usage of accounts through credit-debit transactions is a critical success factor for catalyzing financial inclusion, and also the necessary first step for women to adopt digital mediums for conducting financial transactions.

A large number of women's accounts remain dormant due to negligible credit and debit activity. By identifying the prevalent income-generating activities or value chains among women customers and connecting these income streams to their accounts, greater account usage can be activated. This will also form the first link of a sustainable digital financial transaction chain.

However, in order to alleviate women's fear of losing their digital money, a cash deposit and withdrawal facility will need to be created within their reach. This can be facilitated through last-mile banking agents. Moreover, if these banking agents belong to the local community, the pace of adoption can be accelerated. When there is trust among women that they can access cash at their convenience, they will withdraw only the requisite amount and start saving, establishing the second link of the digital financial transaction chain.

But while income and savings can kickstart the usage of digital mediums, the chain will remain unsustainable without a conduit for spending, using the same account. Here, the merchants in the women's vicinity will need to be on-boarded to accept digital payments.

To complete the integrated digital financial transaction ecosystem, data generated from digital incomes, savings and spending can be utilized to build digital financial profiles of the women, which can then enable improved financial access for them.

A MODEL FOR DIGITIZING FINANCIAL ACCESS FOR WOMEN

Intellecap has digitized over 800 women across 30 villages in India by building an integrated digital financial ecosystem for them, following the approach outlined above.

We did this by implementing integrated rural digital financial ecosystem pilots for women-dominant agriculture value chains, including dairy, poultry and food processing, across selected geographies in India. The pilots have demonstrated success on several primary metrics such as income, savings and productive time for smallholder women farmers. As secondary gains, these women have built higher awareness of digital channels of transactions, and gained more financial independence through better control over their income and expenses.

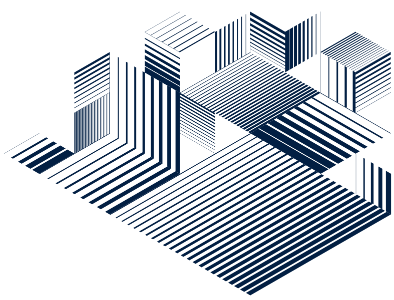
In our dairy value chain digitization pilot, 36% of financially excluded women in the pilot villages were included in the formal economy, and 80% of the participating women dairy farmers also reported an increase in savings. Through the pilot for the food and beverages value chain, 75% of self-help groups for women entrepreneurs improved sales in their businesses through market linkages using digital platforms.

The unique value propositions of the pilot partners – which ranged from rural value chain aggregators to payment/commercial banks and lending fintechs – have ensured that these pilots continue to scale. The integrated ecosystem model endeavors to first establish the roots of digital financial services deployments, and then branch out in phases. It therefore presents the most sustainable way to replicate digitization across varied value chains, both formal and informal, enabling comprehensive inclusion for women across geographies.

Ankur Seth was a former Manager at Intellecap

Neha Kumar is a Senior Associate at Intellecap

This article first appeared in ***Next Billion***



A 'PHYGITAL' MODEL TO ENABLE RURAL BANKING

By Neha Kumar, Abhishek Shah and Himanshu Bansal

Physical models have not worked in rural banking due to high costs, while India's rural customers are not yet ready to go completely digital financially. A disruption model that unifies both, or a phygital partnership, could address real pain points of rural customers

Rural Banking hasn't worked in India, just like it hasn't in the other emerging countries. To decipher this, lets dissect the rural ecosystem into three major segments: The male-dominated agricultural value chains; women-dominated allied activities such as dairy, poultry, food processing etc.; and the micro-retailing ecosystem. While micro-finance has served women credit needs to some extent, the agri and micro-retailing value chains have been majorly dependent on the informal money lenders. Despite being better served, rural women are mostly unbanked, with low formal savings due to inconvenience in visiting remote bank branches, usually 5-10 km out of their localities, along with loss of a day of productive work.

About 56 percent of the Indian rural economy comprises small and marginal farmers, who cannot access credit due to fluctuating incomes, farming cycle to EMI cycle misalignment and agricultural uncertainties. Village level micro-enterprises also struggle due to dominance of cash transactions, limited credit history and insufficient financial documents. From a financial institution (FI)'s perspective, high cost of acquisition, constant service support coupled with in-sufficient credit history accentuates the overall complexity in underwriting these segments. Limited experience of micro FI (MFIs) to underwrite individual loans has impeded the graduation of JLG customers to larger ticket individual loans. For micro-retailers, the lack of financial access constrains their SKU holding power and turnover. Consequently, for distributors, this blocks working capital, constraining their growth.

The Banking Correspondent (BC) model, long considered a potential solution for the rural banking ecosystem, has met with moderate success. Low commission rates prevent BC operations from becoming a primary income source for the BC household. Moreover, the enormous pain points of cash management make the success of the model is dependent on merchants with high liquidity.

> New-age Small Finance Banks and Payment Banks have been unsuccessful in fully leveraging the opportunity to offer better banking services to rural customers. Banking licenses were offered to MFIs and other institutions with the hope that these institutions will be able to serve rural customers with holistic solutions, and at the same time, digitise re-payments to improve their own margins. However, the deposit ticket size challenges fixate banks' focus on non-rural / NTB customer segments through separate banking verticals.

Phygitisation of the rural ecosystem, is a potential solution to enable rural banking. Here's why:

- Cash income is the primary reason for account dormancy and rural cash economy. By digitising the income for the farmers, as well as their business expenses, FIs can look to drive account primacy, which in turn encourages banking behaviour. Partnerships with aggregators such as FPOs, co-operatives etc. or digital agri platforms can facilitate the effort.

- Liquidity of the digital money earned, through trusted entities, is vital to build a sustainable solution. On-boarding trusted value chain players as BCs can drive liquidity of the digital money and allow people to transact frequently. Through this, savings also get a much needed push and travelling to a physical branch is no longer required. Cash can be withdrawn in bite sizes, while the rest is saved automatically. Innovative goal oriented 'gold savings' or 'Diwali savings' products that leverage local customs and aspirations of rural consumers, can further promote digital savings.

- Phygitisation of the kirana value chain through FMCG/ OEM partnerships and enabling digital payments at the merchants, through USSD or a merchant assisted model, can help complete the digital loop, and also enable access to credit for merchants. Retailers can also double up as BCs, adding to their existing incomes. The digital trail capacitates working capital (WC) finance to retailers, thereby improving SKU holding power and turnover.

- The phygital ecosystem data trail can enable access to finance for all key stakeholders. Products such as cattle finance, WC finance and equipment finance can be offered through data-driven scorecard tools created by the banking / MFI players, leading the value chain digitisation effort. Partnership with equipment OEMs can also drive loans against the (semi- perfect) collateral by enabling interest subvention and promoting secondary market for collateral under a buy-back agreement.

Globally, such partnership models and digital data usage have already been tried with success stories in Africa and China. The Jaza Dukka model of micro-retailer digitisation covers 17,000 kirana stores. It has resulted in 20 percent growth in inventory and sales. In China, the TaoBao platform hosts more than 5 million businesses, across 2000+ villages. The data trail generated from the use of platform has allowed banks to provide unsecured loans without financial statements or prior credit history.

Clearly, physical models have not worked in rural banking in the past, due to the cost structures involved. And the Indian rural customer is not ready for going completely digital just yet. What is needed is a disruption model that unifies collaborations through value propositions for both FIs and customers. A phygital model based on unique partnership between Banking, MFI, FMCG, and agricultural sector players provides the needed consolidation and solutions that address the real paint points of the rural customers.

Neha Kumar is a Senior Associate at Intellecap

Himanshu Bansal was a former Associate Partner at Intellecap

Abhishek Shah is an Associate Vice President at Intellecap

This article first appeared in ***Forbes India***

GENDER LENS INVESTING

MAINSTREAMING GENDER LENS CAPITAL SOLUTIONS FOR WOMEN-LED SMEs

By Trina Roy

Gender Lens Investing (GLI), an approach to promote social and/or economic empowerment of women, in addition to financial returns has gained traction in the past years.

India currently has more than 8 million women-led businesses that represent 13.76 % of all businesses in the country as estimated in the Sixth Economic Census. With improved education outcomes, targeted interventions by the government and private sector, and other socio-economic factors;

Women entrepreneurship has witnessed a rise over the last couple of years. States such Tamil Nadu, Kerala, Andhra Pradesh, West Bengal and Maharashtra have the highest share of women entrepreneurs.

Applying a gender lens to budgetary allocations, the government as an impetus to promote women led entrepreneurship has taken certain steps. These have included measures such as expanding the Women SHG interest subvention programme to all districts, making one woman in every SHG eligible for a loan up to 1 lakh under the MUDRA Scheme, among others.

While these are welcome moves by the government to ease the access to finance challenge – an acute challenge faced by women entrepreneurs, the time is right to initiate conversation about bigger reforms.

Gender Lens Investing (GLI), an approach to promote social and/or economic empowerment of women, in addition to financial returns has gained traction in the past years. Adopting the GLI approach, investors seek to channel debt and equity to businesses that create positive gender outcomes through various strategies. Some of these include supporting women as entrepreneurs, investing in development of products and services benefiting women, and channeling capital in businesses having a high share of women employees and in their value chains.

For India to unlock the potential of women entrepreneurship, concerted strategies to catalyze GLI and develop effective financing products for MSMEs (Micro, Small and Medium Enterprises) in particular will be critical. In this article we explore how the GLI philosophy is applied to supporting women entrepreneurs, specifically in the SME sector.

> Supporting women led SMEs through targeted demand driven financing approaches and products lies at the heart of transforming the capital access scenario for women entrepreneurs in India. Depending on the type of scale and sector of an enterprise, multiple approaches can be explored.

First, after assessing the sector and sub sector category of MSMEs, tailored financing products combined with capacity building support can be developed. Majority of women led enterprises being subsistence businesses do not typically attract capital from investors or banks. Many of these women-led SMEs in India operate in sectors such as textile and handicrafts, food processing, beauty and wellness and are overwhelmingly concentrated in the micro and small scale business segment. Their particular needs are significantly different from high growth businesses to which the traditional start up ecosystem caters or steady businesses to which banks provide capital support. Bearing in mind their business models and market needs, sector or cluster specific financing products that provide patient capital aligned to growth rates and pay back periods would be instrumental to spur growth.

Second, blended financing products combining different types of capital – debt, equity and grant can also support women-led SMEs in underserved geographies or in sectors with low profit margins. With flexible capital, blended financing products reduce capital costs and can be leveraged effectively to overcome the problem of low returns and high risks; concerns that often limit traditional private sector investments. As an investment structure mixing concessionary and for-profit capital, the Women Entrepreneurs Opportunity Facility (WEOF) is a remarkable example of an effective blended finance product deploying capital to a segment often overlooked by financial institutions and global investors.

Third, innovative structuring of gender financing through development impact bonds, guarantee bonds, soft loans can also be explored to meet the needs of women entrepreneurs in the MSME sector. These serve as effective mediums to bridge social goals and economic returns. Experiments with development impact bonds (DIB) and outcome bonds are at its nascent stages and have been promising in areas like health and education in India presently.

How would the DIB work? Adapting similar structuring to create a gender focused impact bond would channel private capital toward women entrepreneurship and augment the Government of India's efforts to promote it. DIBs bring together the public, private and philanthropic sectors and align their interests towards a common set of objectives. Commercial investors pump in capital in a DIB, and the DIB in turn on-lends growth capital at low interest rates to a target women-led SME segment. Over the agreed tenure period, women-led SME repay back the capital with the given interest to the DIB. An independent agency monitors the outcome in terms of scale achieved by the SMEs and on its basis, a donor(s) and/or the government makes a payment to the DIB. Commercial investors are paid back by the DIB using the capital repayment by SMEs and the outcome based payments from the donors or government.

Other experiments including guarantee fund, soft loans, and interest rate subventions are viable alternatives to consider as well. To bring about a paradigm shift, efforts to build capacity and ease capital access must work simultaneously. Serious efforts by both the government and private sector are necessary to steer and mainstream Gender Lens Investing for women entrepreneurs in India.

Going forward, building a strong evidence case for GLI will be an imperative first step. Supporting data-backed research to provide insight into the performance and potential of such SMEs is crucial. Additionally, mapping stakeholders like investors, incubators, experts, enterprises, to identify opportunities of collaboration will strengthen its case. The current measures targeted towards women in SMEs provides the initial boost and is a larger signal for other ecosystem players, specifically the private sector to come forward and build on this momentum.

Trina Roy is an Associate at Intellecap

This article first appeared in ***Economic Times***

WHAT MOST WOMEN-LED ENTERPRISES IN INDIA HAVE IN COMMON

By Urvashi Devidayal and Prachi Maheshwari

A recent economic survey has highlighted significant increase in women-led enterprises in India.

What do 90 percent women-led enterprises in India have in common? It is a simple answer - They don't operate at scale and are not ready for investments. A recent economic survey has highlighted a significant increase in women-led enterprises in India. However, majority of the eight million women-led enterprises in India are subsistence businesses. Less than 17 percent of these women-led enterprises have a hired worker, and majority of them operate in informal sectors.

In India, it's easy to find successful micro-enterprises in the vicinity run by women, who not only manage their household but also financially support their families and educate their children. These are often home-based businesses that have the potential to scale but the entrepreneurs are unable to do so. Is access to finance the biggest challenge? Or are there other critical factors such as market linkages and business models that need to be addressed while designing and implementing initiatives and market solutions to include women?

Over the years, there have been several schemes, initiatives and programs implemented by the government and the private sector, to increase access to finance for women entrepreneurs. However, most of these programs exclude majority of women-led enterprises due to their inherent design and implementation methodology. These challenges need to be addressed by changing the narrative around women entrepreneurs.

High-risk perception of women entrepreneurs

Most traditional banking institutions have a high-risk perception while lending to women entrepreneurs, due to their perceived limited understanding of financial technicalities, lack of collateral, as well as networks.

> Women-led enterprises often do not adhere to the applicable financial reporting standards, which further leads to a higher rejection rate from banks. However, women are proven to be more cautious money managers, investors, and there is enough statistical evidence from the microfinance sector to prove that majority women borrowers fulfill their loan requirements. Perhaps, there is a lesson to be learnt from lending to big business defaulters, and start changing our perception of women borrowers.

Other challenges identified are eligibility issues, lack of requisite paperwork, and product mismatch of schemes offered to women entrepreneurs. With the ease of doing business increasing in India, a lot of these challenges can be overcomed.

There are now a number of online resources for filing paperwork, registering businesses, trademarks, and more, that can be leveraged without leaving the house. And once such resources are leveraged effectively across the country - everything from tax filings to balance sheets can be sorted out from home -- which will eventually work to the advantage of the woman entrepreneur who often faces mobility issues due to their dual responsibilities of child and family care.

Do we need more female bank managers and women fund managers?

When it comes to access to finance, the male dominant financial services sector is another challenge. Lack of adequate women relationship managers and loan officers has often been highlighted as a key reason for women entrepreneurs avoiding bank visits.

According to the International Finance Corporation (IFC), women employees constitute less than 20 percent of the workforce in banks. The numbers are even fewer for women fund managers in private equity firms. With low representation of women in financial sector, unconscious gender biases of our patriarchal society often influence the investment decisions, leading to high rejection rates for women-led businesses.

Improved gender diversity in the investment space will not only help increase access to finance for women led businesses but also improve financial performance of the institutions.

This might be one of the simplest things for banking institutions to change; by increasing the number of women relationship managers. We live in a patriarchal society and no matter how empowered a woman is – she may be more comfortable speaking to someone of the same gender.

Catalysing women investing in women

Moving beyond loans and borrowings, and looking at global trends, the recognition that we need to go beyond conventional schemes and initiatives has brought about one such aspect of "Women Investing in Women", where venture funds set up by women are investing in women entrepreneurs. Almost 70 percent of gender lens investing funds in developed countries were either seeded by women investors and/or raised from women as limited partners.

Jane VC was recently launched in the UK -- it is an early stage venture fund transforming the world of women-led startups. Funds such as Pipeline Angels and Next Wave Impact in the US are not only investing in women entrepreneurs but are also running targeted interventions to build capacity of women as angel investors.

Global initiatives such as SheEO and #radical generosity are transforming how we use innovative models to provide access to finance for women led businesses. Samantha Katz at Left Tackle Capital in New York is focused on increasing the number of female fund managers and is working to change the demographics and culture of asset management.

In light of the global examples mentioned above, what can be done in India to encourage 'women investing in women'? Do we have enough women in India, who have an agency of taking financial decisions and investing their money in other women? Can the established women entrepreneurs and high-net-worth women in India collaborate to build a positive narrative and business case of investing in women entrepreneurs?

This is a debate that must be addressed – the current programs on "empowering" women are not passing the mark and to see a real change on the ground we need to address a new way of thinking if India wants to see an inclusive society.

Urvashi Devidayal is the Sankalp India Lead at Intellecap

Prachi Maheshwari was a former AVP at Intellecap

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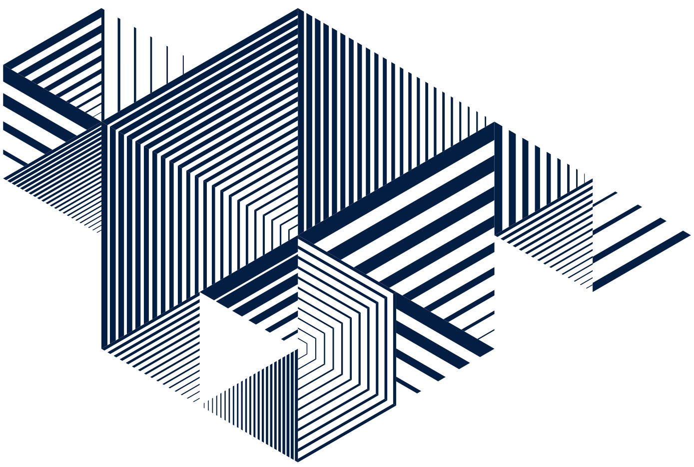

HEALTHCARE

PUBLIC PRIVATE PARTNERSHIPS WILL STRENGTHEN INDIA'S HEALTHCARE SYSTEM

By Tanya Philip

According to a study published by The Lancet, India's performance in the global healthcare access and quality (HAQ) index was lower than our neighbours Bangladesh and Sri Lanka as well as all other BRICS nations. Poor quality of services in the public sector and a heavily commercialised private sector have together resulted in poor access to affordable and good quality healthcare for a majority of the Indian population.

One of the central issues plaguing the sector has been the abysmally low public spending on health. The National Health Policy 2017 aims to "increase government health expenditure as a percentage of GDP from the existing 1.15 per cent to 2.5 per cent by 2025." This is unimpressive when the current global average stands at about 6 per cent, according to The Lancet. Furthermore, the World Health Organisation noted that it is difficult to get close to Universal Health Coverage at less than 4 per cent -5 per cent.

This leaves much to be desired from non-governmental stakeholders in order to help bridge this immense national resource gap. Niti Aayog's proposal to rope in private sector providers for the treatment of non-communicable diseases demonstrates the government's willingness to augment its healthcare response capacities by bringing private players on board. Additionally, the central government's most recent Ayushman Bharat health insurance scheme seeks implementation support from the private sector by means of expanding their scope of operations. Overall, aside from the capital constraints, the sheer size of the national healthcare challenge at hand demands for a more collaborative approach.

> Much of the conversations around healthcare reform recently have been constrained by ideological debates on public versus private. The ground reality is that about 70 per cent of healthcare service delivery in India today is driven by the private sector. Leveraging the strengths of the private sector can only infuse greater efficiencies and resources that will help to strengthen our national response to our healthcare challenges.

That being said, any collaborative healthcare delivery model should be based on clear terms and conditions, defined partner obligations and performance indicators monitored over a stipulated period of time in order to achieve common, pre-determined healthcare objectives. In addition, consideration needs to be given to technology changes that are likely to impact how healthcare is delivered.

The 108 Emergency Management and Research Institute (EMRI) is a unique public private partnership model between state governments in India and private players which employs an 'operate and maintain' service contract between the two. This initiative undoubtedly fills an existing needs gap with coverage estimated to be 750 million people at an annual per capital cost of less than $ 0.25. However, insufficient supervision and a lack of due diligence has caused some concerns recently. Audit reports noted that the MoUs were signed in a manner that undermined the ability of the state to enforce conditions of service and levy penalties for deficiencies. Competition is crucial for the success of the contracting and bidding process since it helps keep costs down and maintain high services quality. Unfortunately, there is not much competition in the emergency medical services suppliers market in India. More competition could be infused through shorter contract periods. Performance needs to be more closely linked to payments. Outcome indicators around quality of service, response time and utilisation rates need to be closely monitored and certain service delivery standards should be set as pre-requisits for contract reapplication.

Thus, the design and management of service contracts under PPPs in healthcare can determine the extent to which they can succeed. The absence of well designed and implemented service contracts should not be read as a failure of PPPs altogether. The key ingredients for the success of a PPP include the transfer of risk from public to private, strictly monitored performance indicators and government ownership of assets at the end of the contract period.

This is, in no way, a means of absolving the government of its financial responsibility of increasing budgetary allocation for public provisioning of healthcare services. Without exploring more collaborative, innovative approaches to help nudge things along, India's public health crises will only multiply over the years.

Tanya Philip is an Associate at Intellecap

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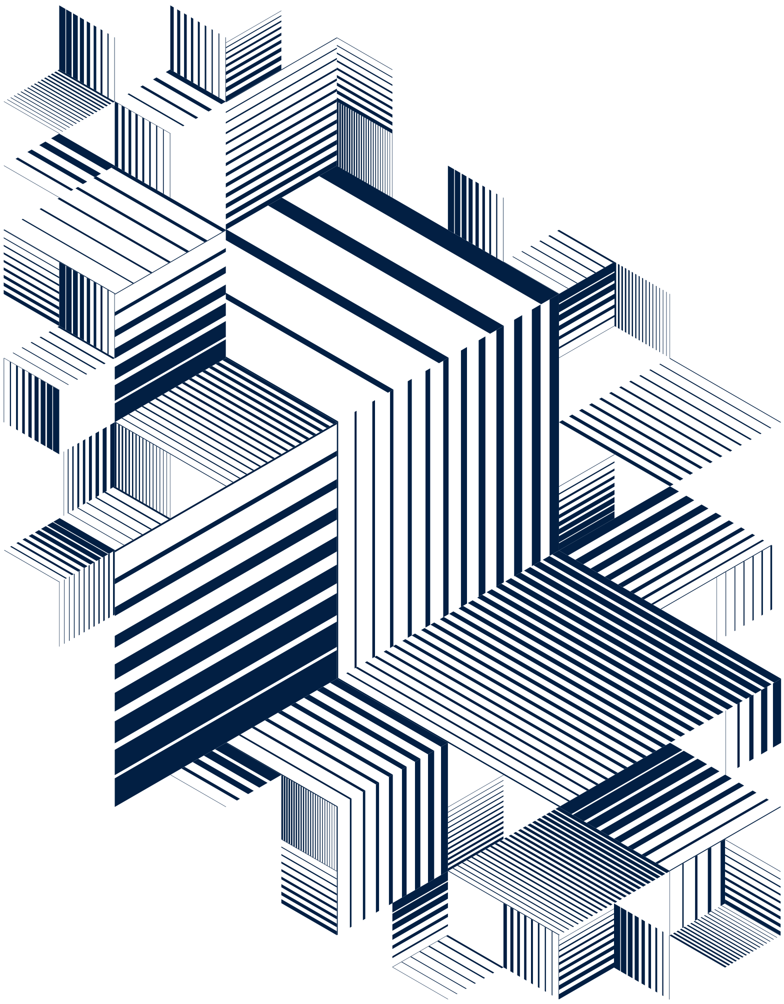


THE GROWING THREAT OF CARDIOVASCULAR DISEASES IN INDIA

By Tanya Philip

Non-communicable diseases (NCDs) like cardiovascular disease (CVD), heart disease etc. are the leading cause death in India today, accounting for a quarter of all deaths in the country . In economic terms, India stands to lose $2.17 trillion due to cardiovascular diseases before 2030.

BURDEN OF CVDS ON THE POOR

Poverty is both a symptom and a cause of poor health. The number of Indian's falling below the poverty line due to catastrophically high out of pocket health spending was about 55 million in 2011-12.

A recent study found that the median expenditure per episode of hospitalisation due to NCDs was $149 or INR 10,000 . This is higher than the average monthly minimum wage in India. Not surprisingly then, the cost of hospitalization for the treatment for NCDs accounted for about 47% of the total annual household health expenditures and about 30% of this cost was financed through borrowings in the case of poor households in India. Other studies show that hospitalization with CVD results in 12% higher odds of incurring catastrophically high spending for households and 37% greater odds of them falling into poverty. This is creating a huge financial burden on the poor in India today.

THE CURRENT CVD HEALTHCARE ECOSYSTEM GAP

Unfortunately, in India, the growing incidence of CVD is not yet seen as a pressing public health challenge, and few public health programs have targeted its prevention. The Indian primary and secondary healthcare systems are predominantly focused on infectious diseases, child and maternal health, and injuries. These overburdened systems are underprepared to handle CVD prevention efforts in addition to what seem like more pressing public healthcare issues.

Standard CVD risk factors include tobacco smoking, low physical activity, high calorie intake and high fat diets. Behavior change communication around the importance of lifestyle and diet management in the prevention of CVDs is a critical missing link India's public healthcare system today. This is especially true for healthcare service delivery to the rural poor.

THE SOLUTION

It is critical for diet and lifestyle management interventions to be incorporated into the overall disease management framework to tackle to burden of cardiovascular diseases. This presents a huge untapped opportunity for innovative business models operating in the area of preventive healthcare in India. There is a pressing need for switching from a reactive approach that focuses on treating of illnesses to one that targets soon to be sick populations. The preventive healthcare market in India is growing at a compound annual rate of 18% and is estimated to reach a size of $100 billion by 2022 .

Innovative business models operating within the preventive healthcare space are rapidly attempting to shift the focus to creating a demand for preventive healthcare and lifestyle linked interventions before the onset of an illness. Some notable examples include Vitor Healthsciences, a Bangalore based company which offers 10 diagnostic tests which can be administered in less than 10 minutes at a price that is 1/10th of the prevailing market price making diagnostic testing much more affordable. CureFit, another Bangalore based health and Fitness Company that offers digital and offline experiences across fitness and nutrition has raised almost USD 300 million across 8 funding rounds.

Inspite of a few successful use cases in India, the lack of awareness among patients for the need and value of preventive healthcare has resulted in a low willingness to pay for these services, thus making it harder to for these businesses to demonstrate long term financial sustainability. Government awareness generation and health education program can go a long way in helping to generate demand for these preventive healthcare services in bottom of the pyramid communities and among those who would typically only seek healthcare services at the advanced stages of a cardiovascular disease. This will result in tremendous cost saving at the household level as well as for the economy as a whole on account of reduced treatment costs and improved quality of life of the individual.

Tanya Philip is an Associate at Intellecap

IMPACT INVESTING

2019: A ROADMAP FOR IMPACT INVESTMENT IN INDIA

By Vineet Rai

India has been at the forefront of the Global Impact Investing Movement, and this could be its watershed year

When you drive past a massive dump of waste in Indian cities, most of us feel helpless. The dump is not only an eyesore but also represents a serious health hazard to the people living around it and more importantly, to those scavenging waste from it.

But if you are an impact investor, you might see this challenge as an opportunity--to not only get rid of it but also help poor rag pickers with better waste management. You not only generate returns for yourself but also end up solving the public health hazard issue.

This is not a Bollywood story, but a real opportunity. The world has been looking at India as a place where good intentions mixed with risk-taking capital is changing the way for the marginalised, whereas low income households are seeing the risks and vulnerabilities in their lives reduced by means of finding new employment.

As we move into 2019, it is useful to look at global and local trends that may define the journey of Impact Investing in India for Indian impact investors and Impact Entrepreneurs.

- Global Trend 1: 193 governments of the world have agreed on sustainable development goals, which imagine a world free of poverty, hunger and inequity. These goals have to be achieved by 2030 and were signed in 2015. This is the most audacious goal, and Impact Investing is a potent solution to achieve this reimagined world. We need to mobilise US $2.5 trillion every year over the next 12 years to be anywhere near these goals; and a lot of pension fund money could soon be looking to find investments that can also change the world. I see this singular trend make an unparalleled impact on the ecosystem in 2019. » Global Trend 2. Global Asset Managers such as TPG, KKR and Blackstone have begun launching Impact funds. Their moves bring global attention to impact investing, a trend that soon would mean strong and positive progress for the sector, and also make us more accountable, transparent and committed to the idea of impact.

- Local Trend 1: While India has been a global leader in impact investor mobilising capital, 95 percent of this capital has been foreign. We have just started noticing the trend of Indians looking at investing in impactful businesses.

- Local Trend 2: With the focus of the Government of India on startups, the impact investing industry has seen a rub-off effect of an entrepreneurial nation,

India has been at the forefront of the Global Impact Investing Movement. On one hand, we have brilliant entrepreneurs coming up with innovative ideas to solve complex social problems faced by farmers, labourers, migrants and the environment. On the other hand, we have professional well-meaning fund managers mobilising capital to fund them. This journey mirrors that around impact investing in countries like the US and UK. However, what makes the India story unique is the scale and potential it offers for commercial return, despite the risks and long tenure.

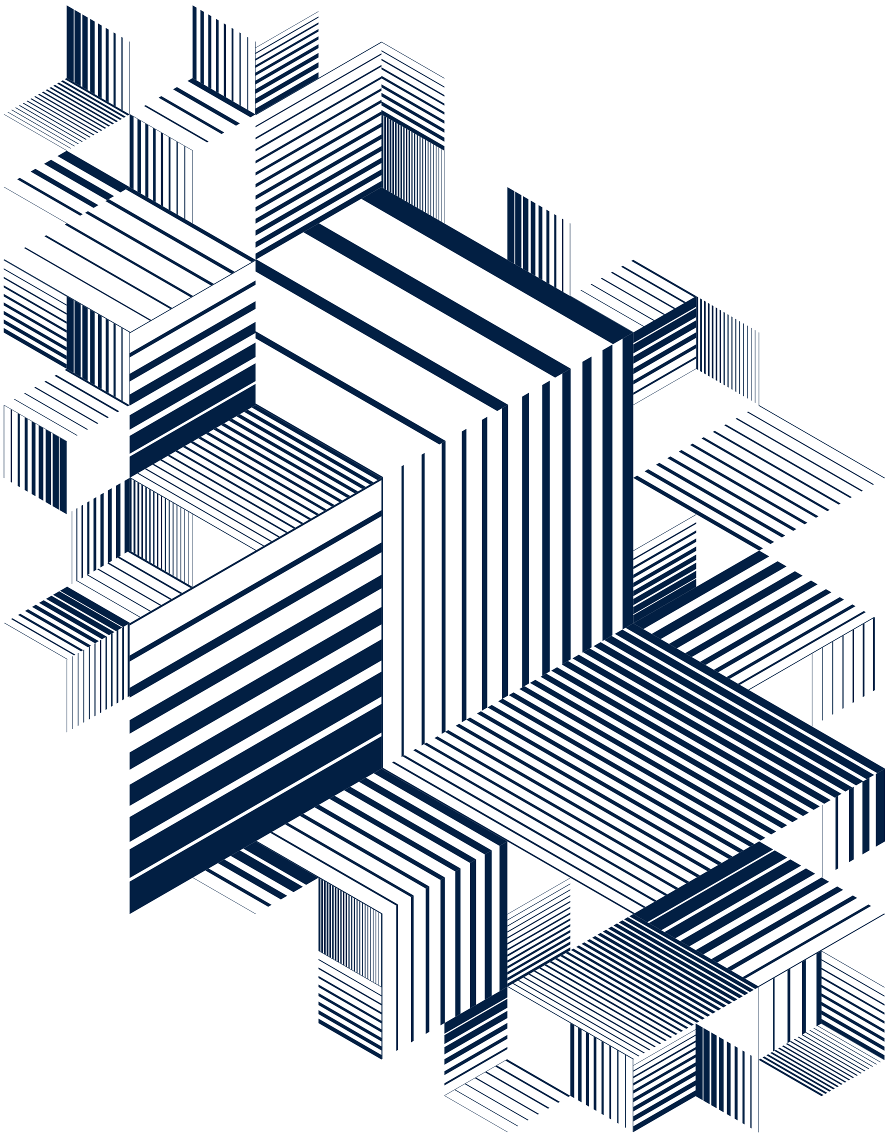
where not only does the government pool of capital support impact investing, but is also seen as positive reinforcement.

- Local Trend 3: India is becoming the solution provider to the impact investing needs of the world, which faces similar challenges. We predict that Indian fund managers and impact entrepreneurs will build global impact business and you could see that idea fructifying in 2019.

My personal belief is that 2019 will be a watershed year for impact investing not only in India, but globally. With some brilliant successes amongst the impact startups in India, the time for global interest in in the Indian impact story is ripe.

Vineet Rai is Founder, Intellecap, and Chairman of the Aavishkaar Group

This article first appeared in ***Forbes India***



OVERLOOKED AREA FOR IMPACT: LAST-MILE CONNECTIVITY

By Vineeth Menon

As on June 30, 2018, 3.5 billion people across the globe did not have access to Internet. This divide in access is prominent in underdeveloped regions and among middle and lower-income groups. Affordability, availability and digital awareness are key deterrents that restrict this population from accessing Internet. This lack of access to Internet has created multiple challenges to development, such as illiteracy and unemployment.

A number of social enterprises have emerged since the early 2000s in response to the Internet access challenge that low-income and under-served populations face, and the movement has gained traction in the last few years. These enterprises are extending access to such 'last-mile' low-income urban, remote and rural populations, prioritising access challenges over enterprise viability, while seeking both.

The impact investment community, which seeks to create social or environmental benefits, directing capital to enterprises that accomplish impact goals, has traditionally looked beyond connectivity. In fact the sector 'Internet connectivity' does not even feature as part of the areas of focus on many of the leading impact investors' propaganda. There is a rising need to acknowledge the social and economic impact created by these enterprises in order to magnify development outcomes.

This impact is delivered through an expedited access to products and services across core sectors such as agriculture, education, financial services, health and more importantly, gender. myAgro, a mobile application, helped 18,000 farmers in Mali/Senegal save for seeds and fertilizers through custom made agricultural financial access products, leading to yield increases of 50 to 100 percent. The SMS Story in Papua New Guinea, known to exhibit low reading proficiencies in its elementary and primary schools, delivered daily mobile phone text message stories and lesson plans to teachers on children's reading abilities. This programme helped to establish statistically significant results, among the treatment group that performed better on educational outcomes.

In 2006, before m-Pesa was launched, 25 percent of Kenyans had access to banking products. By 2014, this figure had jumped to 68 percent. Kenya also saw a boost in outcomes of HIV treatments post introduction of SMS-based interventions. A study conducted in rural areas of South Africa found evidence that mobile phone coverage increased wage employment by 15 percent, an effect observed mostly due to increased employment by women.

The last-mile connectivity ecosystem needs to draw interested stakeholders, particularly investors aligned by their mission to address the under-served community's

Studies across the globe have identified and quantified the fact that connectivity enables economic growth and facilitates social development. Huawei's quantitative analyses show that for each percentage increase in Global Competitiveness Index (GCI), there is a 1.4 to 1.9 percent increase in a nation's gross domestic product (GDP). This may be relatively higher for emerging countries. Evidence from various studies also shows that connectivity has a positive impact on employment and earnings.

access and affordability challenges for basic services. More importantly, these stakeholders need to include an increasing proportion of domestic actors. As new stakeholders enter the space, there is a need to review and develop a stronger rationale and typology, as well as institutional structures such as contextual standards for impact measurement and reporting for last-mile connectivity.

Vineeth Menon is an Associate Partner at Intellecap

This article first appeared in ***Forbes India***

A SAVVY PERSPECTIVE: POOLS OF CAPITAL ALLOW FOR CUSTOMIZED SUPPORT AND LARGER IMPACT CREATION

By Gagandeep Bakshi

The following interview with Gagandeep Bakshi, Director & Head of Investment Banking at Intellecap, occurred as a follow-up to the 'Innovative Financing for Social Entrepreneurs' round table discussions in Cairo.

SIEMENS STIFTUNG: One topic that repeatedly came up during the round table discussion is the need to customize supporting programs that are targeted towards social entrepreneurs. Obviously this is not easy for cost reasons. What are your thoughts on how we can address the need for more customization?

GAGANDEEP: With our work at Intellecap, we specifically realized in India and Africa that the enterprises don't necessarily follow the same pattern and they don't necessarily have the same kind of challenges or problems. The single problem that they all face is capital, right? And to that extent, you cannot say that any kind of capital fits them all because their problems and challenges are all very different. So, one of the things we have always been pushing for is the appropriate distribution of capital instead of giving a grant. Let's create pools of capital that are long term, and have the ability to give them different kinds of capital.

So when we work with ecosystems, we try to address the capital challenge by coming up with broader or more innovative vehicles that address the capital needs of the entrepreneur.

SIEMENS STIFTUNG: When you say "capital", are you talking about equity investments, or is it a specific type of (patient) capital that you have innovated?

GAGANDEEP: What we do at Intellecap is design vehicles that allow innovative capital to come to enterprises. I would call it patient capital in the sense that the outcome should be patient for sure, but the intention is to give different types of capital to the same enterprise (or different enterprises) based on their growth journey and capital requirements. There are many agribusinesses that need short-term working capital for a tight seasonal demand and/or supply. And there are maybe healthcare companies that might need long-term capital because the healthcare structure or the enterprise takes a lot more time to break even than an agribusiness, which is based on a season.

So giving every enterprise the same kind of capital does not make sense. It should be patient capital but it should have the ability to give different kinds of equity, debt or a returnable grant, if I can call it so. In those pools of capital, I could have long-term debt from OPIC, but I could also have large foundations that have also put in some capital

which does not require any return but just the principle back. The idea is that you should keep your cost of capital for the enterprise as low as possible, but only to the extent of how low your cost of capital is that you are taking from the limited partners or from the funders across the globe.

SIEMENS STIFTUNG: You participated in the round table about public private partnerships. Regarding the pools of capital that you just described, could they also be put within a frame-work of public private partnerships?

GAGANDEEP: Absolutely. One needs to understand that public private partnerships have to be used in a certain way. Many entrepreneurs who have a dependency on the government for re-venues have failed for some time and that's a major learning even for companies in India. So we need to work with the government to better utilize the existing infrastructure that the government has, rather than depending on the government to give you revenues, because in many cases the government has actually failed in delivering in terms of the milestones of the revenue payments to the enterprise and enterprises have suffered a lot in the last 10-15 years.

SIEMENS STIFTUNG: What is your experience with social impact bonds as a vehicle that provides enterprises with public sources of revenue? What are the crucial success factors?

GAGANDEEP: The intent of social impact bonds is very good, but we see a bottleneck in emerging countries regarding the size of social impact bonds. While providers of capital (by way of impact bonds) have made a significant amount of capital available, we see challenges in the deployment of such capital because most impact enterprises are very small in size.

We need to work towards this and one idea is that we can create a pooling asset, where we have all early-stage enterprises pool their demand of capital into one vehicle which is able to raise large amounts of social impact capital. The providers save the cost of managing each enterprise's capital, and the entity which has pooled the capital will be able to do that job on behalf of the providers of capital.

Gagandeep Bakshi is a Director, and Head of Investment Banking at Intellecap.

This article first appeared in ***empowering people. Network***

BEYOND POLICY AND PUBLIC INVESTMENT: UN's SDG IMPERATIVE FOR BUSINESS

By Karnika Yadav

Source: OECD

There is only one road left to achieving the Sustainable Development Goals (SDGs) set for Africa for 2030 and that's through sustainable businesses. For the sluggish progress to date has been primarily a consequence of 'putting all our eggs in one basket' and expecting the state to deliver the SDGs, which it cannot.

A prime obstacle in that is finance. The SDG Center for Africa estimates the financing gap to achieve the SDGs is running at between US$500bn and US$1.2tn a year. That is simply beyond the reach of the public sector, with the Center estimating that delivering basic state functions of health care, education, water, energy, and road infrastructure requires more than 50 per cent of the GDP of most African countries.

However, for the private sector, pursuing the 2030 goals of eradicating Africa's hunger, poverty, and inequality and improving healthcare will deliver its own rewards, creating business opportunities worth more than a trillion dollars a year, according to United Nation estimates.

In the absence of that private sector mobilisation, progress remains achingly slow.

The 2019Sustainable Development Goal Three-Year Reality Checker Report found only five countries in Africa -Seychelles, Mauritius, Morocco, Egypt and Algeria -that had met the SDG target of three per cent poverty by 2015.

Yet the problem is substantially one of mindset. For, while achieving the right policies and public investment is necessary for delivering the SDGs, we need to abandon the idea that it is enough and focus more rigorously on developing SDG aligned businesses.

It is not viable to expect nation states to achieve a tax take, or a debt load, of 50 per cent of GDP to deliver basic services when the continent is home to a vast informal sector that contributes no government revenue at all.That 'basic needs' bill is just unmeetable without a leap forward in business and GDP growth.

And just as public sector SDG success depends on private sector take-off, so too does the private sector'ssuccess.

Investing in SDG-focused businesses, calculates the UN, would create over 85 million jobs in Africa by 2030, which would in turn create new consumers and new markets.

> Indeed, even relatively small investments in SDG-focused businesses can produce huge returns. For instance, investing in agriculture technology to reduce food waste could generate US$57bn a year in additional revenues, based on evidence from Rwanda, where small metal silos or plastic crates have reduced post-harvest losses by over 60 per cent and increased smallholder farmers' incomes by more than 30 per cent.

If private businesses collaborate with local governments to provide larger infrastructures, such as ports, oil and gas extractives, power plants and automotive, shared revenue of over US$296bn could be generated and nearly 16 million jobs, according to the UN's estimates. There could be further benefits too from using local materials for such works.

Likewise, providing affordable housing, clean water and sanitation, infrastructure and energy solutions,such as solar lanterns and improved cooking stoves to urban dwellers,has a potential revenue value of US$214bn a year and could create over 32 million jobs.
Such growth is typical for businesses focused on achieving SDGs. Indeed, research conducted by the Business and Sustainable Development Commission (BSDC) shows that business that is focused in SDG areas also achieves more value locally.

For instance, reports the BSDC, 71 per cent of the value of food and agriculture businesses is retained in developing countries, 60 per cent of health and wellness businesses, 54 per cent of energy and materials, and 54 per cent of the value of upgrading and developing new cities.

Overall, business models that are directed towards achieving Africa's SDGs have proven to work to the benefit of both consumers and businesses, which is why they lie at the heart of all we are doing at Intellecap and at the annual Sankalp Africa Summit for entrepreneurs in Nairobi.

Our initiatives to support private sector SDG initiatives include research, partnerships and projects spanning ideal adaptive technologies, such as rural solar mini-grids; private sector capacity building among communities displaced by projects such as the Olkaria geothermal plant; and assisting small producers into value addition and niche markets, in tea, in bamboo, and multiple other high potential areas.

We have no doubt that without a re-calibration of our private sector SDG efforts, the 2030 goals for Africa will go unmet, whereas if we now see and seize this opportunity, no African will be left untouched by the benefits borne of SDG-focused entrepreneurs.

Karnika Yadav is an Associate Partner at Intellecap

*This article first appeared in **Maravi Post***

WHAT COUNTS AS IMPACT

By Vineet Rai

As large pools of capital get allocated, we have to make sure that the soul of impact investing is not compromised.

At the turn of the century, some of us set out to find an alternate way to look at development. Capitalist principles had brought about steep economic growth; however, this had come with gaping economic disparity. We wanted to understand: could one tame capitalism and steer it to bring positive change in the lives of those who had hitherto been ignored in capitalist systems? Could entrepreneurship help make the world more equitable, by empowering those excluded from economic activity and disenfranchised from making choices?

The quest for answers to these questions in India, USA, Europe, and Africa, led to the birth of impact investing.

HOW IS THE IMPACT INVESTOR DIFFERENT?

Given that most investments, at first sight, make impact, it may seem that there is a significant similarity between a commercial investor and an impact investor. Both need to find entrepreneurs, evaluate business plans, help attract new talent and capital to scale, and back ideas or enterprises that take risks and generate returns.

> "For the impact investor, it is imperative that the business passes the impact screen before even conducting diligence on its return potential."

The difference is that for the impact investor, it is imperative that the business passes the impact screen before even conducting diligence on its return potential, whilst for the conventional investor, maximising returns is the sole objective.

The other critical difference is that the impact investor is seeking a profitable solution to a complex social problem, most likely in a broken ecosystem. A venture investor, on the other hand, is creating value by filling a 'want' gap in an evolved ecosystem to achieve a disproportionate return.

And, finally, an impact investor is aware that their absolute return can be similar to a commercial investor's return; but if adjusted for risk, the returns may be lower in comparison.

WHO OWNS THE IMPACT?

Having established the role of an impact investor, we move to the more vexed issue: who makes the impact and hence who owns it?

Impact has boundaries

The impact investor's role in creating impact is limited to the strategy of finding the most impactful idea and channelling capital to it. Hence, the right impact metrics for a fund to report would be its contribution in identifying the complex social problem; the number of entrepreneurs it supported to solve the problem; the governance and diversity it promoted; the initiatives the fund took to reach new or challenging geographies that do not usually attract commercial capital; the kind of commercial capital that was attracted by the fund; and the value added by it in furthering the thesis of impact.

While it may seem obvious for a fund to report on the social impact achieved by its investee companies, the issue is a bit more nuanced. The impact created by the social enterprise and its attribution to investors (based on ownership) may lead to a perverse incentive for late-stage investing, as an investment when the company has already scaled would be wrongly construed to have 'more' impact.

While many alternatives can be explored to make impact reporting more effective—including simple benchmarking at the time of investment and reporting only additional outreach—we recommend reporting the enterprise's impact without seeking attribution or claiming ownership for that impact.

Impact is contextual

Impact investing brings together different stakeholders—the limited partner, the impact investor, the entrepreneur, the community on the ground—to achieve a complex goal. All these stakeholders come from different cultural contexts and values, and one person's definition of impact may not align with the other's. For an impact investor, navigating these differences can be difficult but is paramount to create real on-ground impact.

> "Stakeholders come from different cultural contexts and values, and one person's definition of impact may not align with the other's"

One such example was our investment in a company that was running a Business Process Outsourcing unit (BPO) 7,000 feet above sea level in northern India. This was the first time that formal jobs were created in that village, giving employment opportunities to both young men and women.

To the investing community, this represented a successful project that had the potential to create a significant impact in an underserved community. The villagers however did not share the same view, because this was the first time that a boy and a girl from the village had fallen in love and eloped from the village. And the villagers blamed the BPO for it.

From the villagers' point of view, it had dented their culture and peace; while from the girl's and boy's perspective, this opportunity gave them the financial freedom to exercise their basic rights. To the limited partners across the globe, this project created jobs and changed lives.

The point here is that impact is contextual and is recognised differently by different stakeholders.

Already a complex subject, impact investing is further complicated by the conflicting cultural backgrounds of not only the investors and entrepreneurs but also the customers, communities, as well as the employees of the impact investment fund.

WHAT COUNTS AS IMPACT?

The impact investing movement has benefitted over the years from many positives, such as its championing by the Global Impact Investing Network (GIIN), India Impact Investors Council (IIIC), Global Steering Group and initiatives such as Sankalp and SOCAP. The announcement of the United Nations Sustainable Development Goals (SDGs) that were signed by 193 countries to create a world free of hunger, poverty, and inequality was another positive.

> "We would need to invest USD 2-3 trillion every year, for the next 12 years, to come anywhere close to meeting the SDGs."

In a study conducted by the Business Commission for Sustainable Development, that I was a part of, we determined that we would need to invest USD 2-3 trillion every year, for the next 12 years, to come anywhere close to meeting the SDGs. The study found impact investing to be a credible and effective tool to realise some of these goals.

These developments have led to the allocation of large pools of institutional capital from pension funds and insurance companies to impact investments. This means that we now have new participants in the impact investment ecosystem, including those from the world of asset management, private equity, and hedge funds. Many of them have relationships with these capital providers, and are of the erroneous opinion that an investment that makes impact is similar to impact investing. Thus, building a careful dialogue between the neo-converts and the specialised impact investors is becoming increasingly critical.

While it is encouraging to see the growing momentum in impact investing, it is equally important to categorically find a way to raise the threshold of being an impact investor from one that merely entails adding the suffix, 'Impact' to your fund's name and publishing an Impact Report.

WHERE ARE WE HEADED?

I empathise with the fact that making attractive commercial returns and changing the world simultaneously is difficult. However, I strongly believe the world cannot be changed without doing anything different from what has been done over centuries. Making investments needs to be looked at from a different lens—merely investing and expecting the impact to trickle down is not enough.

We cannot allow impact investing to become a victim to the dictum that all investments make an impact in some way and hence there is no major need to do anything different. The mere act of investing cannot help us re-imagine a world that is free from hunger, poverty, and inequity. Solving such inequities requires a more committed and conscious approach to investing, and that soul of impact investing cannot be compromised.

I believe the next decade will be spent in trying to create a correlation between capital deployed and the impact created on the ground. There is also a need to create a tradeable impact currency (like carbon credits) that can help bridge the gap between those who are creating impact and those who are 'impact washing'. This will go a long way in facilitating the expansion of the sector without damaging the deeper goal of impact investing.

Vineet Rai is Founder, Intellecap, and Chairman of the Aavishkaar Group

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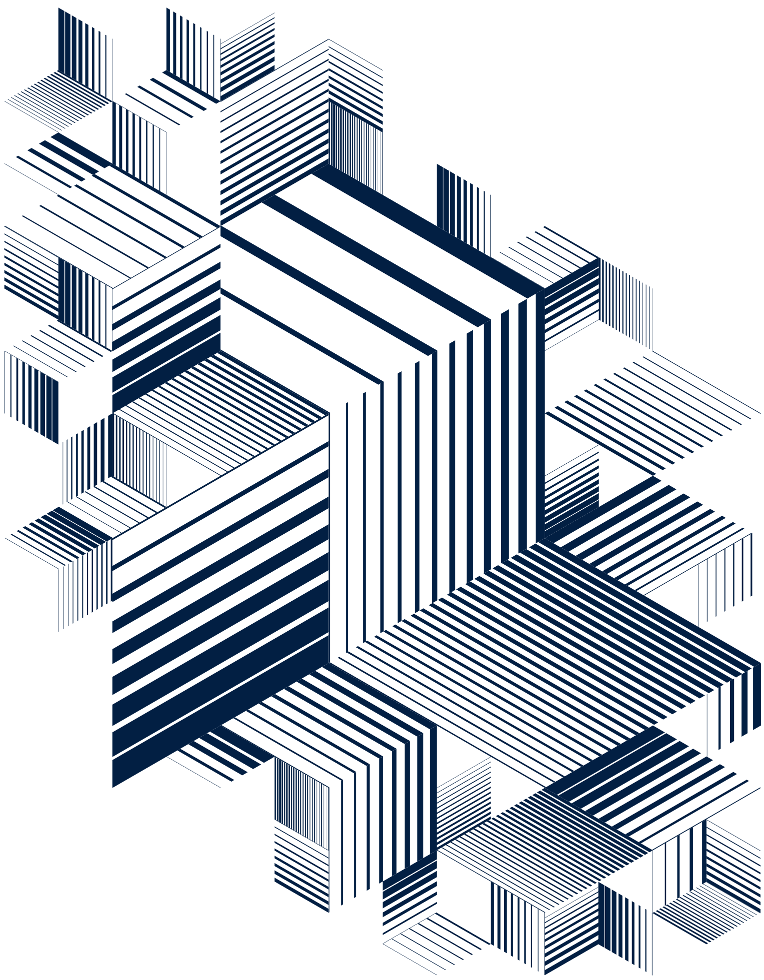

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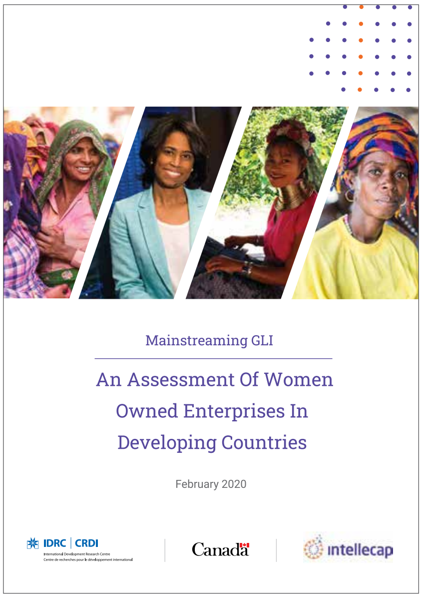

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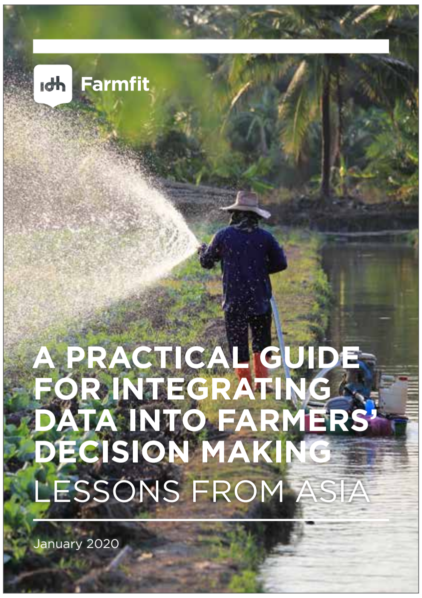

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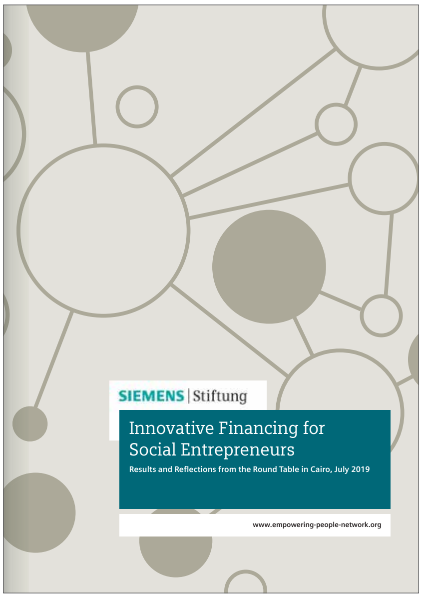

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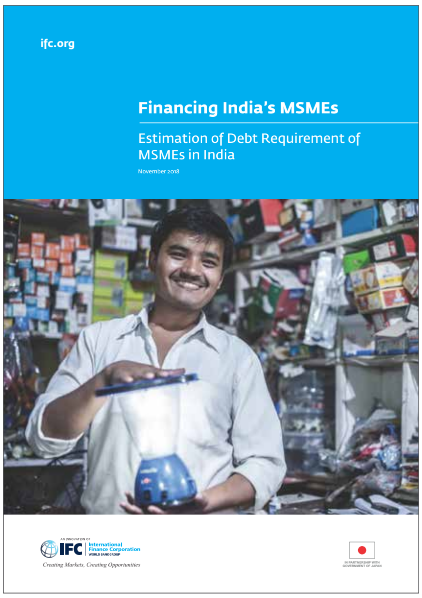

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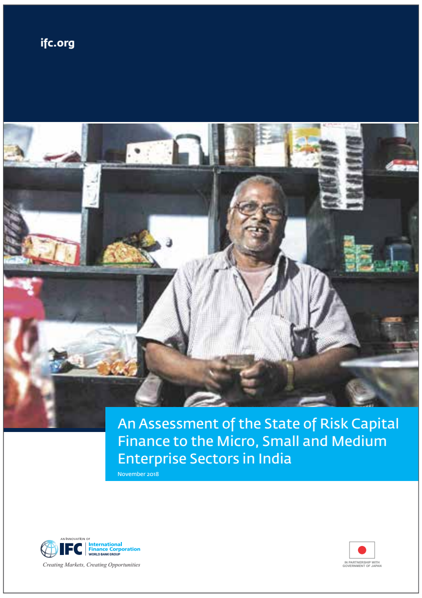

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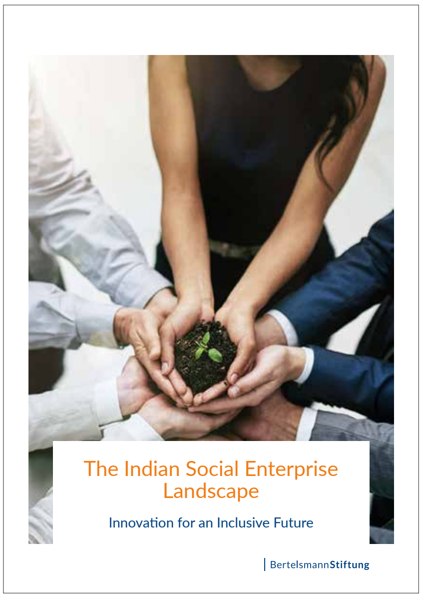

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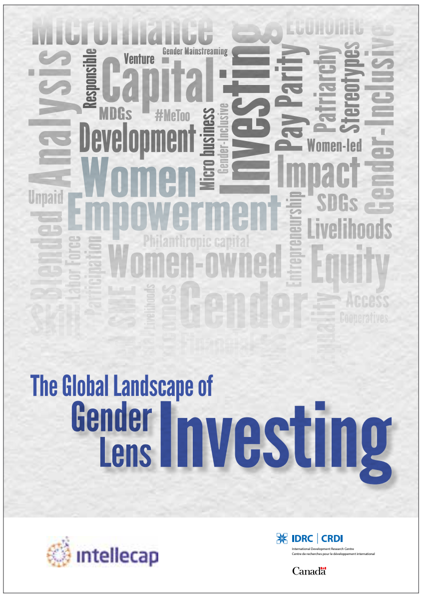

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