

# IDEAS FOR IMPACT

CASE STUDY COMPENDIUM OF  
SOCIAL ENTERPRISES FROM  
INDIA'S LOW-INCOME STATES

BHUSHAN AGRO  
CLARO ENERGY  
ECO TASAR SILKS  
FRONTIER MARKETS  
GRAM TARANG  
GREENLIGHT PLANET  
GREENWAY GRAMEEN INFRA  
GV MEDITECH  
KANUNGO INSTITUTE  
KAUTILYA PHYTOEXTRACTS



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SHAPING OUTCOMES



**SANKALP FORUM**

Catalyzing impact investments into  
sustainable and scalable enterprises globally

AN INTELLECTCAP INITIATIVE

PRESENTS

**Samridhi**

Social Enterprise Recognition  
and Regional Summit

## ABOUT INTELLECAP



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## ABOUT SANKALP FORUM-SAMRIDHI SOCIAL ENTERPRISE RECOGNITION & REGIONAL SUMMIT 2012



The Sankalp Forum-Samridhi initiative for India's low-income states has been established in collaboration with the Sankalp Forum; the Department for International Development (DFID, UK); and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH under the framework of Indo-German Cooperation funded by the German Ministry of Economic Cooperation and Development (BMZ). The initiative aims to bring forth sustainable and scalable businesses in eight low-income states - Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and West Bengal. It is also supported by Samridhi, a social venture capital fund, managed by SIDBI Venture Capital Limited, and launched with contributions from DFID and SIDBI to invest in pro-poor enterprises in the eight states. The initiative focuses on strengthening the ecosystem and aid support services for small businesses that want to create social impact in underserved regions of the country.

The Sankalp Forum is holistic ecosystem designed to catalyze impact investments into sustainable and scalable social enterprises globally. The Forum provides year-round access to investment opportunities, capacity building, knowledge and crucial networks to small and medium enterprises. Sankalp Forum connects over 400 social enterprises, over 400 investors and funders, and 10,000 other stakeholders from across the world. Sankalp Forum is an initiative of Intellectcap, an advisory firm that works in underserved markets. [www.sankalpforum.com](http://www.sankalpforum.com)

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## FROM THE SANKALP FORUM PIT STOP...

India has a veritable tapestry of models aimed at improving the lives of the underserved. Of these, social enterprises that blend sustainability and social impact have been taking centerstage in the last decade. There is emerging recognition that this model could achieve inclusive growth and a palpable increase in research and knowledge efforts to understand how these social enterprises achieve impact. Motivated by some support ecosystem and a lot of passion, these social entrepreneurs have gone on to create and adopt innovative solutions to India's unique challenges and build what we see as the social enterprise sector today.

While social entrepreneurship in India grew exponentially, some geographies became more visible than others. Some well-known success stories of scalable social enterprises include Aravind Eye Care, Narayan Hrudayalaya, BASIX India, and SELCO from South India, SEWA from Western India, and Fab India and Sulabh International in Delhi. In contrast, there are very few visible examples of such scalable enterprises from the Low-Income States (LIS) comprising Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and West Bengal.

Yet, there are some very interesting and successful models that are achieving significant impact in these states. They make up with passion and intent where they lack enabling infrastructure such as access to information, financing, capacity building opportunities and peer learning. A case in point - nine of the 37 Sankalp enterprises in the LIS have received investments ranging from USD 1-20Mn. More than half of India's population resides in these states; yet these are the poorest ranking in terms of many development indicators such as provision of energy, healthcare clean water and sanitation. Poverty is ubiquitous. Of the 27 functional incubators in India, only 4 are located in the LIS. Despite this, 13% of the enterprises sourced since 2010 have operations in one or more LIS. Clearly, there is interest from social entrepreneurs and impact to be achieved - enabling support infrastructure could catalyze these upcoming social enterprises to a similar growth story as in say, South India, and make a significant difference to the lives of people in these states. Taking the Sankalp Forum to the LIS therefore, was a natural next step to foster in these states an enabling environment that recognizes business models capable of transformative impact on society.

### **SANKALP FORUM – SAMRIDHI REGIONAL SUMMIT**

In the LIS, Sankalp Forum-Samridhi aims to build greater awareness for and amongst social entrepreneurs, through its year-round activities and the awards recognition as its culmination. Along the way, it hopes to contribute, together with partner organizations, towards capacity building and engender deeper impact investor and private sector engagement in the LIS. It also seeks to increase policy understanding of social enterprise, with the intention of fostering collaborations.

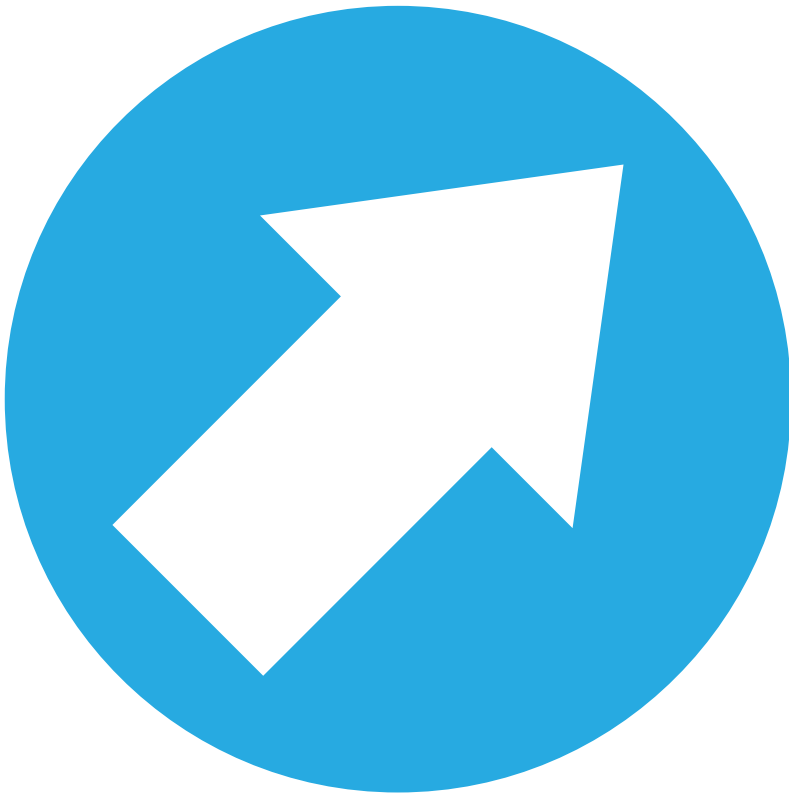
This compendium of case studies showcases the ten finalists at the Sankalp Forum-Samridhi Social Enterprise Recognition 2012, in the hope that these stories will inspire many more in the coming years. Operating in tough geographies has not held these enterprises back. These ten enterprises

currently earn aggregated revenues of just over INR 46 crores, but plan exponential growth over the next 3 years to project aggregate revenues in excess of INR 378 crores.

Engaging with the Sankalp-Samridhi finalists has been an intensive learning experience. Although from different sectors with a kaleidoscope of different products and services, these enterprises showed up some interesting similarities that could spur future research:

- **Home state advantage:** Most entrepreneurs set up their enterprises in their native or home states. They have an innate understanding on how the market works in these states and it makes business sense to work from a position of strength. More than that though, entrepreneurs shared that they felt an emotional need to help improve conditions back home.
- **Low-income states are a focus:** For the finalists, the LIS are not just additional states to add to the enterprise's India footprint. Five of the ten enterprises earn 100% of their revenues from low-income states. Seven out of the ten enterprises have over 80% revenues from the LIS. Five of the ten enterprises operate in Bihar, while four operate in Odisha and West Bengal. Every finalist entrepreneur saw huge opportunities and limited competition in the LIS, and invested in a vision.
- **The hub and spoke model for scale:** Most finalists look to scale up and into remote villages in the LIS using the hub and spoke model – hubs in cities with spokes reaching out into the district and village levels. The model is clearly scalable across sectors, especially when technology – the internet and mobile telephony – aid communication and interface.
- **Local Partnerships for rapid and deep dive:** Closely linked to the above is the focus on building local partnerships that spur deeper penetration. Co-creation or leveraging local and user generated knowledge and feedback that feeds product design, pricing and marketing strategy is another feature of these winning enterprises.
- **Government is an important stakeholder:** Most finalists work with State Government departments to varying extents, and are advisors to the State Government. They seek to build bridges and collaborate to reach common development goals.
- **Deep on-ground experience and skill sets:** Finally, start-ups they may be – but these social enterprises are led by serious talent and experience – most founders are highly educated, often at prestigious Indian and international institutes, and are backed by a core management team that has deep roots and experience in rural development, program management, working with Government departments and India's tough rural terrain.

The Sankalp Forum-Samridhi initiative is proud to showcase these innovative pioneers who work in difficult conditions to take their vision to fruition. We hope you are inspired by these stories as we were. Our endeavor is to follow up with more research and knowledge content in the future. This is but a brief pit stop before we move on to the next lap.....



IDEAS FOR  
**IMPACT**  
BHUSHAN AGRO



BHUSHAN AGRO CAN INCREASE  
FARMING AREA TO **250 ACRES**  
OVER THE NEXT 3 YEARS.



**YEAR OF ESTABLISHMENT: 2010**

**PROMOTERS: CHANDRA DUBEY, R MADHAVAN AND VINAY DUBEY**

Bhushan Agro aggregates fragmented landholdings by leasing it from farmers for a fixed rent, and uses scientific methods of farming on the leased land to improve productivity. It aims to contribute towards food security in India, promote modern methods of farming, improve farm productivity on a sustainable basis, and increase income of the farmers.

Bhushan Agro currently operates in Madhya

Pradesh, and has improved productivity by 25% on 50-60 acres of land in the state. Additionally, it has increased incomes of small and marginal farmers by providing risk-free fixed rent, and strengthened the overall farming ecosystem in the villages by improving groundwater level. They also provided farmers with direct market access and have successfully introduced corn as a third crop.

The agriculture sector in India is marred by several inefficiencies which impact the productivity and income realization of farmers. One of the key issues is high fragmentation of landholding - 80% of the landholdings in India are less than 2 hectares in size. High fragmentation coupled with limited understanding of farmers about scientific techniques, brings down the productivity per acre significantly. It is believed that the productivity per acre for most crops in India is around 25-30%



of that in developed countries. Chandra Dubey, an engineer from the Indian Institute of Technology (IIT Kharagpur) with a management degree from the Indian Institute of Management (IIM Lucknow), realized that there is a tremendous opportunity to increase incomes of farmers if key constraints like fragmentation and outdated farming techniques were taken care of. Dubey formed Bhushan Agro with a plan to aggregate landholdings, use modern scientific methods to increase farm productivity, and thereby improve the income realization for farmers.

## **SETTING UP**

### **EXPLORING THE POTENTIAL FOR IMPROVED FARMING TECHNIQUES**

Before his foray into agriculture, Dubey spent more than 15 years working with large companies in India. According to Dubey, his interest in agriculture began more than 40 years ago with the first green revolution, when India witnessed the potential of improved farming techniques. The tipping point for him, however, was when he attended a workshop conducted by R Madhavan, the 'IIT Farmer' from IIT Madras. Dubey was inspired by the improved productivity that Madhavan had achieved in two years by employing scientific methods. Recognizing the immense potential in agriculture, Dubey set up Bhushan Agro in 2010 personally investing INR 20 lakhs (US\$ 37,880) in the venture. He decided to pilot operations in his hometown, Sagar in Madhya Pradesh (MP). He convinced Santosh Shukla, a big farmer owning 200 acres of land, to lease him 10 acres for a year to start his operations. Interestingly, Madhavan and Shukla, who played a significant role in jump-starting Bhushan Agro, are now part of the core management team. While Madhavan provides technology support to developing farming solutions, Shukla, with his strong connect and goodwill in the neighboring villages is involved in business development.



## THE BUSINESS MODEL

### SPARKING THE NEXT GREEN REVOLUTION IN INDIA THROUGH AGGREGATION OF LANDHOLDINGS

Bhushan Agro's model is pegged on leasing land from small and marginal farmers and improving productivity by using modern methods of farming. By aggregating landholdings through the lease model, the enterprise makes it technically and economically feasible to implement modern farming practices. During the lease period, farmers earn a fixed rent of INR 10,000 (US\$ 190) per acre per year for irrigated land (INR 5,000 for non-irrigated land), an amount that is almost 30% higher than the market rates for leased land in the area. As Bhushan Agro is building buy-in for its model, it pays a higher fixed rent as an incentive to encourage farmers to lease out their land. Using methods such as soil testing, chiseling, fertilizer placement, systematic crop selection and management, it improves productivity per acre. The quality of the produce also improves as a result of better farming techniques, resulting in overall higher realizations per acre than before.

Currently, Bhushan Agro operates on around 50-60 acres of leased land from small and marginal farmers in MP. Implementing the lease model, however, was an uphill task for the team. Says Dubey, "It was very difficult to convince farmers to lease their land to us. We realized that we will have to win the trust of farmers and overcome their resistance by demonstrating improved productivity and benefits." Over time, Bhushan Agro was able to achieve productivity gains in a sustainable manner using improved and practical farming techniques. As farmers witnessed these benefits across multiple cropping cycles, it became easier for them to trust and engage with the enterprise.

Another early challenge Dubey faced was in ground-level implementation of modern farming techniques. Says Dubey, "The gap between traditional farming and scientific farming is so wide, that it was extremely difficult to implement modern techniques. It took a lot of learning and

training for us to master the last mile implementation of modern methods." Having spent more than three years on the field now, Bhushan Agro has moved up the learning curve and can confidently implement new techniques on farms anywhere in the country.

Apart from productivity improvements, the enterprise also aims to improve the overall farming ecosystem in villages and build a healthy and long-term relationship with farmers. As part of this larger endeavor, it suggests cost effective and practical ways to improve the groundwater level for agriculture purposes. Other initiatives include the introduction of corn as an additional crop option in MP and provision of direct market linkages to farmers that enable them to secure better prices for their produce. These efforts to systematically build broader ecosystem networks in the villages helps the team win the trust of farmers, and get them to lease their land and work with the enterprise in the long term.

## OPERATIONS IN LOW-INCOME STATES (LIS)

### IMPROVING THE SUPPORT ECOSYSTEM FOR AGRICULTURE



Madhya Pradesh is primarily an agrarian state, with agriculture accounting for more than 30% of the state GDP and over 70% of employment<sup>1</sup>. Despite being naturally endowed with diverse climatic and crop zones, Madhya Pradesh has been amongst the top five states in terms of farmer suicides over the last decade.

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<sup>1</sup>Madhya Pradesh: New Benchmarks In Agriculture Sector For Small Farmers, CII, 2012



## SOCIAL IMPACT

Small and marginal farmers are the key beneficiaries, as they own 80-90% of the land leased to Bhushan Agro. The enterprise has successfully demonstrated direct positive impact on this marginalized section through improved productivity and income levels.

The model ensures that the farmers earn a high rent for their land, providing them fixed, secure

and risk-free income. They also have the option of working on the leased land for Bhushan Agro and earn additional income in the form of daily wages of INR 120-150 (~USD 3).

Bhushan Agro also plans to share earnings from incremental land productivity with the farmers in the future.

Highly fragmented land holdings, low productivity and low availability of water made farming difficult and non-remunerative for farmers. While many farmers migrated to other states in search of non-farming jobs, some resorted to an extreme step of ending their lives. A native of MP, Dubey had strong foothold in his home state - he had a good understanding of the market and knew relevant people - which made it easier for him to start operations in the state.

Today, Dubey has managed to more than double the income per acre from leased land. For instance, a small farmer growing soybean in MP earned around INR 10,000 (~USD 190) per acre using traditional farming methods. The same plot of land earned an income of INR 35,000 (~USD 669) per acre using modern methods promoted by Bhushan Agro. The enterprise has also contributed to the villages by improving the quality and fertility of the soil, improving the groundwater level, providing on-the-field jobs and reducing food inflation. These encouraging developments in MP's villages have created a positive ecosystem that helps in reducing migration of labor to the cities.

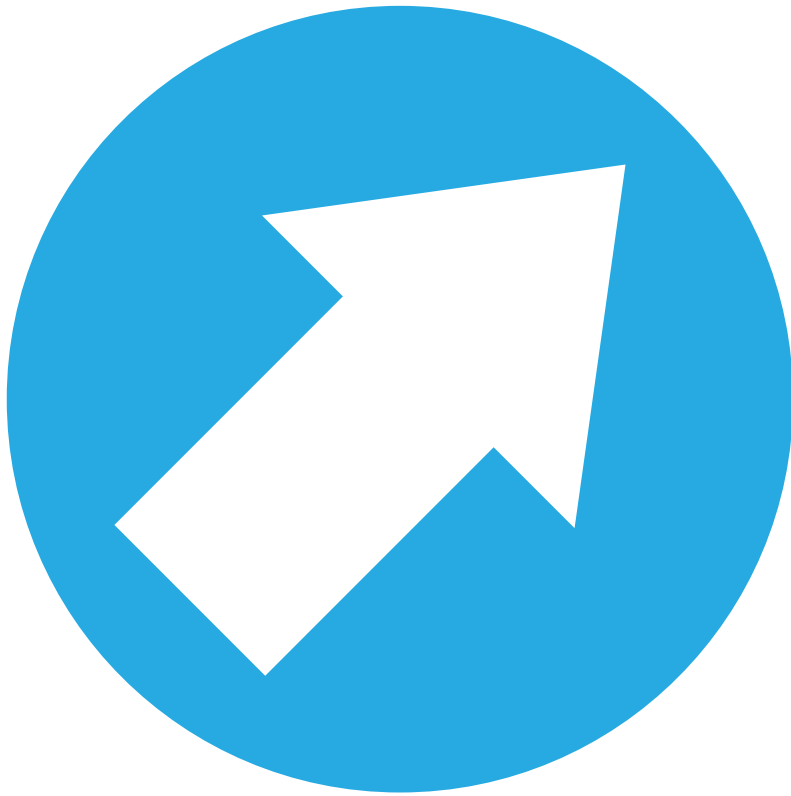
### THE ROAD AHEAD BUILDING BENCH STRENGTH FOR SCALING TO OTHER GEOGRAPHIES

Bhushan Agro's operations are currently concentrated around a single city in MP. Dubey plans to

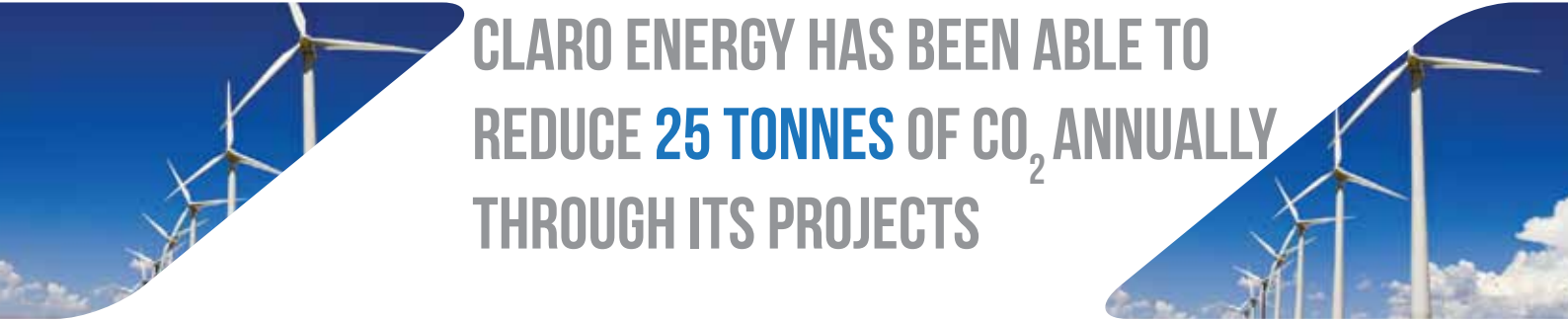
expand operations to other parts of MP, aiming to develop more than 250 acres by 2013, followed by 500 acres and 1000 acres in subsequent years. The long term plan is to be the largest grains, fruits and vegetables producer in MP over the next two decades, by expanding operations to almost 25% of cultivable land in MP. Dubey is also looking at expanding operations to Gujarat.

To facilitate this growth, Bhushan Agro plans to train farm supervisors who can manage and operate 100 acres individually, thereby helping it achieve rapid scale through replication of its farming techniques in other villages. Dubey also plans to leverage in-house research and development to innovate and develop tools and practices that support scientific farming. Tie-ups with food processing units for quality farm produce are another milestone in the future.

These initiatives should help Bhushan Agro meet its ambitious revenue target of INR 3 crores (~USD 0.57 million) in 2015, from the topline of INR 10 lakhs (~USD 19,000) in 2011-12. More importantly, this will help realize Dubey's vision of achieving food security for the country and improving farmers' incomes. Dubey says, "I believe a second green revolution is now needed in a growing India to ensure food security and enable sustainable rural transformation." He hopes that his success will inspire and motivate many more educated professionals like him to contribute to agriculture and impact more than 70% of the population in the country.



IDEAS FOR  
**IMPACT**  
CLARO ENERGY



CLARO ENERGY HAS BEEN ABLE TO  
REDUCE **25 TONNES** OF CO<sub>2</sub> ANNUALLY  
THROUGH ITS PROJECTS

## YEAR OF INCEPTION: 2011

## PROMOTERS: KARTIK WAHI, SOUMITRA MISHRA AND GAURAV KUMAR

Claro Energy has developed a solution to use solar energy to operate water pumps which run irrigation tube-wells and water purification systems. Its solar energy solutions aim to increase agriculture productivity and improve the economic condition of farmers in remote, rural India.

Agriculture is the mainstay of the Indian economy, as it is the principal means of livelihood for over 58.4%<sup>1</sup> of the population. Agricultural productivity largely depends on groundwater irrigation for which electricity is required. Currently, grid power and diesel power are the two major sources of electricity for irrigation. Grid connectivity, however, is either unavailable or unreliable in large parts of rural India, and farmers primarily rely on expensive diesel power for their irrigation needs. Claro Energy (Claro) provides a low-cost and pollution-free solution to this problem – its solar-powered water pump sets are designed to meet irrigation needs of off-grid rural populations in India.

Claro, set up in 2011 as a Private Limited Company, aims to improve agriculture productivity and the economic condition of farmers in India through its solar energy solutions. In the short time in operation, it has emerged as one of the dominant players in the solar pumping space, and has one of the highest number of installations of solar pumping systems in India.

### THE FOUNDING TEAM

#### IMPROVING IRRIGATION FACILITIES TO INCREASE AGRICULTURE PRODUCTIVITY

Claro was founded in 2011 by two engineers and graduates of the Kellogg School of Management – Kartik Wahli and Soumitra Mishra.

<sup>1</sup> Government of India Portal, October 4, 2012  
<http://india.gov.in/sectors/agriculture/index.php>

Claro works in four low-income states (LIS), viz. Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh. A majority of Claro's work is concentrated in the LIS, and in the last fiscal year, 95% of its revenue was generated from these states.

Gaurav Kumar, also an engineer, is an equal partner in Claro and joined the company six months after its inception. Says Wahli, "While in business school, we wanted to go the start-up path. Waste management and clean technology were two options that we were looking at." He adds that they chose to start an enterprise focused on clean technology as the market looked more promising. Solar-powered water pumping solutions had a direct bearing on the income of the farmer, and fit well with their larger goal of "creating a venture with a lasting significance."

### STARTING OUT

#### CREATING AWARENESS ABOUT USING SOLAR POWER TO RUN IRRIGATION PUMPS

In addition to the huge market potential, the policy initiative of including solar water pumping system as a focus area in the Jawaharlal Nehru National Solar Mission (JNNSM) also encouraged the promoters to solely concentrate on this space. Initially, Claro had to undertake a few demonstration projects on its own to educate the Government and create market awareness on the feasibility of solar power to run agriculture pumps. One such demonstration project involved installing a 7.5hp solar pump, which till date is the largest pump in Bihar. Such successes in solar energy in Bihar helped Claro become an advisor to the State Government.

Talent acquisition and retention was a big problem. Wahli believes that a competent project team

on ground is the key to success of his enterprise as they are the ones directly responsible for pump installations, servicing and also business development efforts. He elaborates, “In the last one year, we have learnt our lessons and now the focus is to not only on recruiting people with the right skills, but also with the right temperament to work in a start-up.”

## **THE PRODUCT – SOLAR-POWERED WATER PUMPING SOLUTION**

### **USING SOLAR ENERGY TO HELP FARMERS IRRIGATE THEIR FIELDS**

Claro has developed a solution to run solar-powered water pumps to help farmers irrigate their fields. It has developed a system to integrate solar modules and centrifugal pumps that is enabled through a power electronics middleware. Claro customizes its solutions as per the requirements of each customer. It offers both, AC and DC solar pumping solutions, that cover all types of irrigation needs.

AC solar pumps require a high amount of power supply in a burst to start and Claro was one of the few companies that had developed technology which ensures they started smoothly. In order to stay ahead of competition, Claro also developed an intelligent solar controller with inbuilt MPPT (Multiple Power Point Tracking).

To avoid the resource intensive task of physically monitoring each and every pump in remote locations, Claro has developed an online remote monitoring and control system that facilitates real-time monitoring of the solar pump through an online portal. The system allows monitoring on key parameters of power output, water discharge and energy savings. It was first implemented by Claro for the Department of Minor Water Resources, Government of Bihar. Under this project, Claro installed solar powered pumps for 34 tubewells which were non-functional for some time. The remote online monitoring system has helped the Government department and Claro run

the pumps efficiently, as they are able to monitor each pump and correct defects, as and when they arise. These technological innovations have helped Claro be a leader in the space.



## **THE BUSINESS MODEL**

### **PARTNERING WITH GOVERNMENT AND PRIVATE PLAYERS TO PROVIDE IRRIGATION SOLUTIONS TO FARMERS**

Claro has developed expertise to offer off-grid solar solutions in remote, rural parts of India. In order to deliver quality and efficient services it partners with specialized firms (domestic and international) for product development, solution improvisations and financial investments. Currently, Claro primarily sells to the public sector, as solar-powered irrigation pumps are economical when compared to the cost of connecting remote villages to the grid.

In order to reduce reliance on public sector projects and ensure last mile connectivity, Claro has innovated with different business models. It will soon start pay-per-use business models in Bihar and Bundelkhand in Uttar Pradesh. With this, farmers will avoid the high installation cost and only pay for the pump usage. Claro has also facilitated bank linkages between Regional Rural Banks (RRBs) and farmers so that the banks can finance the high cost of solar pump installation.

In addition to solar-powered irrigation solutions, Claro provides a wide range of portable and stationary solar-powered water purification systems. These systems have been targeted at remote villages that lack clean water and

# SOCIAL IMPACT

Solar powered irrigation pump-sets prevent air pollution due to diesel combustion and emissions of greenhouse gases.

Claro clocked its first sale in August 2011. Since then, its solar powered pumps have assured irrigation to 1600 acres of agricultural land. This has helped farmers increase agriculture productivity, and in turn, their income. Moreover, by having access to irrigation during the day, farmers do not

electricity. The purifiers are designed such that they can be carried manually.

While competition is expected to increase in the future, Claro is confident of maintaining its dominant position in the space with continuous solution improvisations as well as effective after sale services. Currently, small players in the solar pumping space do not have adequate technology and business development competencies. In contrast, large players such as Kirloskar and Jain Irrigation have not paid the requisite attention to this space due to their diverse and large portfolios. These players also lack last-mile connectivity. Wahi feels that this gives Claro a significant advantage over large players.

## OPERATIONS IN LOW-INCOME STATES (LIS) LEVERAGING LOCAL CONDITIONS TO DRIVE LONG-TERM ADOPTION OF SOLAR IRRIGATION PUMPS

Claro works in four low-income states, viz., Bihar, Jharkhand, Uttar Pradesh and Madhya Pradesh. It started its work in Bihar and commands 90% of the market share in the state. Kartik Wahi believes that the state has huge potential as a market for solar irrigation pumps, given that most of Bihar's economy is dependent on agriculture. The high deficit of grid power in the region means that farmers rely on expensive diesel-powered generators. Finally, as Bihar is on the Indo-Gangetic plains, the water-table is low and the average size of landholdings is small –

have to take the risk of irrigating their fields at night, which often exposed them to dangers such as snake bites.

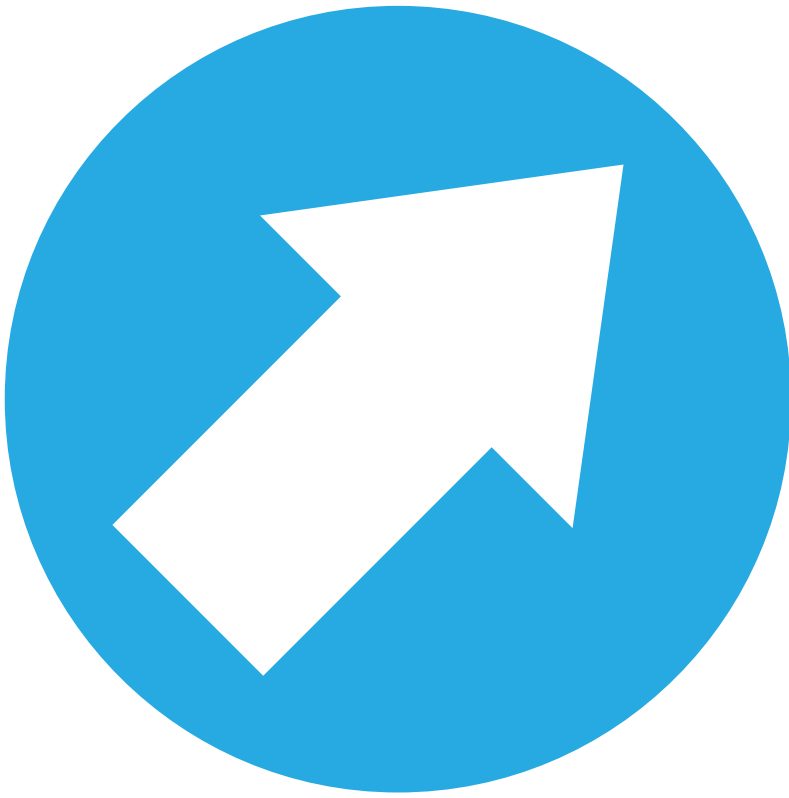
The net incremental benefits to farmers as a result of Claro's projects is estimated to be INR 64.94 lakh (~USD 125,500).Claro has also created 105 direct and indirect employment opportunities in 2011-12.

conditions that are ideally suited for small and low-cost solar pumps. According to Claro's estimates, Bihar alone offers a market potential of USD 10 million. In fact, the biggest customers of Claro are the various Government departments in Bihar such as agriculture and animal husbandry.

## THE ROAD AHEAD EXPLORING WAYS TO BECOME AN END-TO-END AGRICULTURE SOLUTION COMPANY

Claro Energy plans to consolidate and deepen its penetration in the four states that it is currently operating in and also plans to expand to other Indian states. Claro has recently undertaken projects in Karnataka and Tamil Nadu. It also aims to partner with other organizations to provide solutions to Bangladesh, South East Asian and African countries. Wahi says, "We have set some ambitious targets for ourselves. At present we are growing at 500% annually. In the near term, by 2013-2014, we aim to have sold 5,000 pumps. The long term goal is to sell around 1 million pumps in the next 7 to 10 years."

Claro's total income in its first year of operation (2011-2012) stood at INR 2.6 crores (~USD 502,464), the company sees it increasing to INR 45 crores (~USD 8.6 million) in this fiscal year. According to Wahi, "Our aim is to become an end-to-end agriculture solution company that will catalyze agriculture productivity, natural resource conservation and sustainable development in the regions where it operates."



IDEAS FOR  
**IMPACT**

ECO TASAR SILKS



ECO TASAR SILKS WILL EMPLOY  
**3,500 WOMEN** SILK YARN  
MAKERS OVER NEXT 3 YEARS





## YEAR OF INCEPTION: 2007

## PROMOTERS: MASUTA PRODUCERS CO AND KHITISH KUMAR PANDYA

Eco Tasar aims to operate a sustainable business in the textiles value chain, and create a large number of livelihood opportunities for women and artisans. It leverages the handloom sectors' ability to make small customized lots to produce exclusive and well-designed products. Frequent new design releases ensure the continued interest of target clientele.

Eco Tasar operates in Assam, Bihar, and West Bengal. It provides livelihood directly to 300 families through fabrics and weaving, and indirectly to 1,100 more families through cocoon sourcing and yarn reeling. These families come largely from tribal areas and from the economically disadvantaged sections of society.

Silk is the queen of fabrics, and the ultimate symbol of luxury. Ironically, the raw material for silk is traditionally produced by the economically underprivileged in India. Tasar culture is a significant source of supplementary income for many tribal communities in Jharkhand, Chhattisgarh and Odisha, besides Maharashtra, West Bengal and Andhra Pradesh. Over one lakh tribal families are involved in tasar culture in these areas.

Income from tasar culture, however, is low, since the cocoons and yarn that these families produce are not aggregated, and often sold in small lots to middlemen. The real value in tasar culture as a livelihood option is unlocked only if an entity operates across the value chain - from cocoon rearing to fabric weaving. Eco Tasar (ET), along with its parent entity, Masuta, has stepped in to do just that. While Masuta plays the role of aggregator of tasar yarn, Eco Tasar plays the role of the forward integrator, by adding value to the yarn to produce fabric and products, and then, taking these to market.

### THE FOUNDING TEAM

#### CREATING ENTERPRISES ALONG THE SILK VALUE CHAIN

Eco Tasar was spun off from two organizations namely, PRADAN and Masuta. PRADAN, a voluntary organization established in 1983,

creates and implements programs to enhance livelihood capabilities of the poor and give them access to sustainable income generating opportunities. Most of the families that PRADAN works with are from scheduled tribes and scheduled castes. MASUTA Producers Company Limited (Masuta) was set up in 2005. Masuta, an acronym derived from Mahila (woman), Suta (thread) and Tasar, works in four districts of Jharkhand, namely Hazaribagh, Dumka, Godda and Koderma.

Khitish Kumar Pandya joined PRADAN in 2000, and was put in charge of creating a market for the yarn reeled by Masuta. In 2007, Masuta's fabric division was further spun off into Eco Tasar, in which Pandya holds equity along with Masuta.

### THE SILK ROUTE

#### MAKING TASAR CULTURE REMUNERATIVE BY IMPROVING TECHNOLOGY AND MARKET LINKAGES

PRADAN experienced certain challenges in promoting tasar silk cultivation. Although there was a high demand for tasar silk, and investment needed for tasar culture was low, traditional communities that undertook tasar rearing were losing interest in the activity.

Tasar culture, because it was fragmented, did not translate into a viable source of sustainable



livelihood for these communities. Tasar cocoons are available only once a year, and there were no systematic interventions to ensure the health of the worms and moths, or to improve their quality in order to produce the best possible silk. Further, there was a need for appropriate technology to speed up the yarn reeling process, and control the quality of the finished yarn. Moving along the value chain to finished products, demand needed to be sustained through regular design interventions in line with current fashion to cater to the urban retail and export markets.

PRADAN created self-help groups; supported them with know-how for tasar yarn reeling and formed a producer's company, Masuta, in 2005. Yarn reeling and fabric weaving were managed as two separate divisions. In October 2007, Masuta's fabric division was spun off as Eco Tasar, a for-profit company. Pandya explains Eco Tasar's business philosophy, "We prefer everything to be done by hand. If we have a choice between hand-reeled yarn and mechanized yarn, we prefer the hand-reeled product. If we had a choice between weaving on a power loom versus weaving on a hand loom, we prefer the hand loom."

## **PRODUCTS USING TASAR SILK**

### **ADDING VALUE TO TASAR FABRIC BY CREATING AESTHETIC PRODUCTS FOR RETAIL CHAINS**

Eco Tasar currently produces yardage, cushion covers, dupattas, sarees, stoles and scarves for the domestic as well as export markets. "When we started, there was nobody who had done such intensive and exclusive work in tasar, and we were very soon known by the unique look and feel of our products" says Pandya.

In 2009, Eco Tasar started sourcing eri hand-reeled yarn as it faced a shortage of tasar yarn. As eri silk is spun after the moth leaves the cocoon, Eco Tasar was able to add an 'Ahimsa' (meaning non-violence) line of products. Eco Tasar has a sizable client base of Indian and international fabric and apparel retailers including Fab India, Trifed, Nalli's, Utsav, West Elm, World of Good,

Fair Trade Original and Asian Eye.

## **LEVERAGING THE STRENGTHS OF HAND WEAVING AND CONTEMPORARY DESIGNS**

Eco Tasar has operations in Assam, Bihar and West Bengal, and picks up the tasar value chain where Masuta leaves off. The company sources yarn from Masuta and other sources that provide hand-reeled silk. This yarn is then given to handloom weavers who weave it into silk fabric.

Eco Tasar works in an established market, and is also affected by changes in the global industry. "The market dictates our margins, and we compete with powerloom products. Irrespective of how much production has cost, you will only get paid the market rate," says Pandya. He adds, "Hand-reeling and weaving is geared for small lots and quality control is a challenge, whereas in power reeling and powerloom quality control is easier, and volumes are larger." Eco Tasar is turning handloom's limitation of smaller lots into its strength. Pandya elaborates, "We have a lot of boutique customers who give us orders for a small number of pieces. We can make changes to designs faster on handlooms, and are using this to our advantage."

Eco Tasar prefers to outsource design to reputed designers, mainly based in Delhi, and spends close to INR 6-7 lakhs (~USD 11,000 - USD 14,000) per annum on sourcing designs. Since the bulk of Eco Tasar's orders are commissioned, their customers also provide specifications of design and color for the products. Eco Tasar provides opportunities for design student interns too. Each year, students from design and fashion schools such as NIFT and NID work with them to develop new designs for their product lines. Eco Tasar sees this initiative as an investment for popularizing tasar silk.

## **DEVELOPING WEAVING CLUSTERS FOR ARTISANS CLOSER HOME**

Eco Tasar views the rural people based in the LIS

## SOCIAL IMPACT

Eco Tasar currently provides livelihoods directly to 300 people, including 18 employees. Pandya estimates that they have helped each person to earn at least INR 3,000 (~USD 57) per month. Indirectly, Eco Tasar impacts a further 1,100 people engaged in activities like cocoon sourcing. “The model promoted by us encourages sericulturists to have captive plantations of trees on which the tasar worm feeds. Our interventions

have created close to 6000 Ha of plantations of Arjuna (*Terminalia arjuna*.” Pandya explains.

As the plantations are raised on wastelands, and the trees are very hardy. This aids afforestation and also replenishes groundwater. When the trees are pruned at the end of each season, it gives the tribals firewood, which they would otherwise have gathered by cutting other trees in the forest.

as suppliers. At present, much of their fabric weaving takes place in Bhagalpur in Bihar, with some weaving efforts being initiated at Phulia, West Bengal. In addition, it also sources eri yarn from Assam. Eco Tasar’s LIS operations account for around 45% of the turnover.

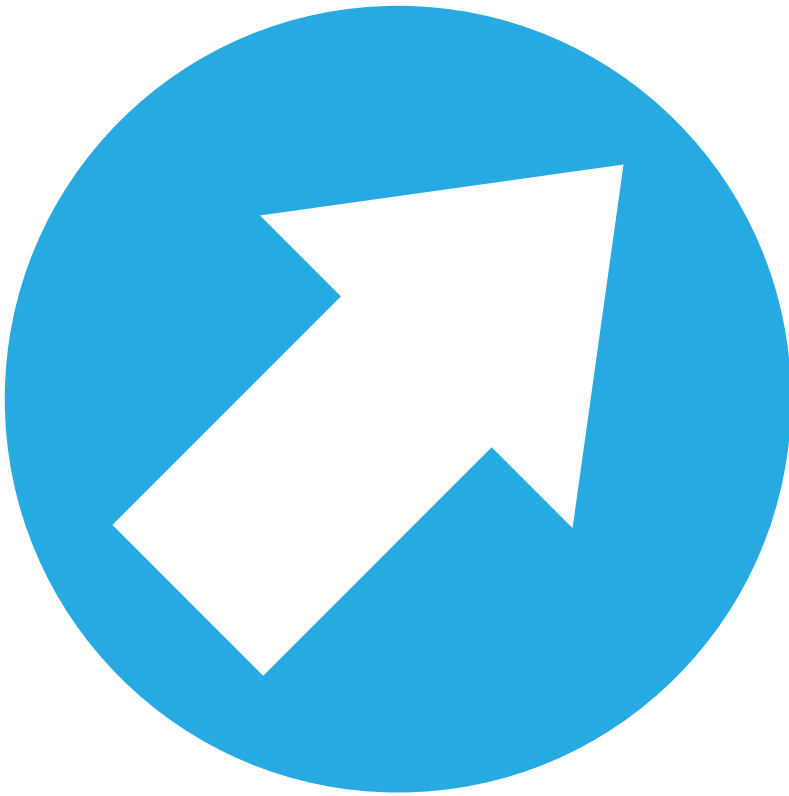
Future plans include diversification from yardage, home furnishings and non-tailored fabrics into tailored apparel. Eco Tasar also wants to increase value addition to the fabrics through block printing, and would like to move these production and value addition activities away from cities to smaller towns and rural areas with weaving clusters. Pandya says, “We have a garment unit in Noida. But all the people working there are from eastern UP, Odisha, Bihar and neighboring areas. Why do they have to move so far away from their home states to find work? ET is trying to bring them the same jobs closer to their home.”

### THE ROAD AHEAD

#### PLANNING FOR FUTURE DEMAND BY CREATING CLUSTERS OF HAND YARN REELERS AND SKILLED WEAVERS

Eco Tasar aims to reach out to 2000-5000 weavers in 5-7 weaving clusters across the country, while targeting to reach a turnover of INR 20 crores (~USD 3.8 mn) by 2015. Sourcing yarn, though, is its biggest challenge. Given the volume of yarn that it will need to meet planned targets, Eco Tasar is clear that it will also have to create a cadre of hand yarn reelers to feed this growing demand. It is already taking steps in this direction by working across geographies with other agencies involved in sericulture, and diversifying into other silks, such as eri.

Eco Tasar is also exploring opportunities to integrate skilled weavers who can create unique products, given the opportunity. Eco Tasar’s operations in Phulia, West Bengal help in sourcing Jamdani sarees from the weavers there. In order to further widen the pool of skilled weavers, it plans to move into weaving clusters in Andhra Pradesh (for unique products such as Pochampally and Venkatagiri), Madhya Pradesh (Chanderi) and Uttar Pradesh (Varanasi) in the coming years. Pandya signs off on an optimistic note, “There was a time when we had to hire just about anyone who came our way. But our business is establishing itself, and we are slowly finding the right people now.”



IDEAS FOR  
**IMPACT**  
FRONTIER MARKETS



FRONTIER MARKETS IMPACTS  
**50 MILLION HOUSEHOLDS**  
ACROSS 4 INDIAN STATES



**YEAR OF ESTABLISHMENT: 2009**

**PROMOTERS: AJAITA SHAH AND DANIEL TOMLINSON**

Frontier Markets provides rural households a basket of efficient and affordable choices for lighting and cooking products. It contributes towards reducing pollution and inefficient use of fuel, and helps innovative, clean energy product manufacturers reach remote customers. Frontier Markets utilizes feedback from retailers and customers to provide manufacturers with feedback on design, applicability and relevance of

their product.

Frontier Markets replaces traditional cooking and lighting practices with clean energy options, reducing indoor air pollution and chronic illnesses related to noxious fumes emitted during use. Rajasthan contributes 100% of Frontier Markets' current LIS operations. There are plans to scale up to other low-income states such as Odisha and Jharkhand.

The power situation in most parts of rural and peri-urban India is grim, with kerosene lamps being the dominant source of light. For the rural poor, cooking is done on traditional cookstoves using biomass collected or purchased locally. This base of the economic pyramid (BoP) market lacks access to energy and markets to acquire products. The market opportunity is sizable, at an estimated USD 2.1 billion and 600 million consumers.

Frontier Markets (FM) focuses on rural households in Rajasthan, where “bijli” and “pani” (electricity and water) are huge challenges. FM targets consumers who have limited access, but high demand for quality and affordable energy products, reside in rural and semi-urban settings and live in a households that make incomes ranging from INR 2,000-3,500 (~USD 43 – USD 76) per month. FM brings these consumers a basket of clean energy solutions, which are assessed and found suitable for the market by independent advisors. These include solar lanterns, torches, home lighting systems, and batteries.

FM educates consumers about these products and enables them to make informed choices. With an innovative model that customizes solutions for consumers, FM opens new opportunities for manufacturers to create affordable and relevant products for rural markets and helps them with distribution through innovative marketing chan-

nels. The enterprise has currently reached 40,000 households in Rajasthan.

## **THE FOUNDING TEAM**

### **CREATING A BUSINESS MODEL THAT EMPOWERS CUSTOMERS THROUGH CHOICE**

Ajaita Shah and Daniel Tomlinson are the initial founders of FM. Shah is the Founder/CEO, and has five years of microfinance experience as a Credit Plus Manager at Ujjivan Financial Services, and Director for Swayam Krishi Sangam (SKS). Tomlinson is Co-founder and Vice President, and has done business development and process design for Drishtee, and was formerly a senior consultant for Accenture's Organization Effectiveness Practice.



Rajesh Kumar, Co-Founder and Vice President of Field Operations subsequently joined the FM founding team. He has over 15 years of rural marketing, rural recruitment, training, and field

experience through his work with MFIs, NGOs, and Government initiatives across India.

While working in the microfinance space with SKS, Shah and Kumar were struck by the fact that while MFIs offered microloans, the poor were not offered a basket of financial products to choose from. No one really explained the different products available to them. “Unless you gave them choice, it didn’t seem like long term impact. When you educated them of the other interventions, and explained why this product was better and enabled them to make an informed choice, impact happened,” says Shah.

Daniel set up the processes and systems and created the plan for the enterprise take-off. Shah was the actor on the field; she took charge of marketing and selling as well as recruiting and creating a field staff for the enterprise. Shah is fluent in Hindi and Marathi and is a Rajasthan native, which helped her in this role. “Initially, our team functioned on enthusiasm. Two and half years down, our roles are more defined and refined,” says Shah.

## **STARTING OUT**

### **LEVERAGING RURAL MARKET INSIGHTS FOR DISTRIBUTING NON-FINANCIAL PRODUCTS AND SERVICES**

Tomlinson and Shah had deep backgrounds in the microfinance space, and were especially familiar with the plight of rural women. Says Shah: “We realized that finance was important, but these other products and services were important too.” Armed with this insight, from 2006 to 2009, the team tried pairing health services with microfinance, energy products with microfinance and so on. They found the effort challenging and “operationally flawed.” Their learning was that the microfinance distribution point was crowded, so trying to sell complicated products using the same channel would not work. “We naturally veered to recognizing the need for creating a similar channel (to that of microfinance distribution) for non-financial services in the rural market,” says Shah. This meant that they had to have the same deep interaction and interface with their rural custom-

ers, the hub and spoke model for sales and distribution offices that could parallel or complement the microfinance network.

Shah adds, “every rural household has a cell phone, if not two. They understand the nuances of cell phone usage and why they have the phone they have. Once they see the value in the service or understand how it meets their needs, finance becomes secondary. To me that is the baseline for any product we sell to them – they need to know the why and how of their decision for the intervention to be impactful.” With this as the starting premise, Shah and Rajesh turned their focus to one of the two main needs of their target audience –water and electricity. Energy products were their first halt, given that their audience knew the pain of not having this service, they had a fear of kerosene and a hatred for chimneys and smoke.

There were many products targeted at rural markets in the energy space. How was the rural audience to decide on which one suited them best? And how was Frontier Markets to say which products they should buy? With the objective of making their distribution more honest and transparent to their beneficiaries, and letting them know that FM cared about what they bought and were not simply talking them into buying a product, the team created the element of assessment. “Trust and confidence were the major challenges we wanted to address, and we needed independent assessments for this,” says Shah.

Understanding that the cornerstone for enabling consumers to make informed choices related to improved health, improved income or better living conditions was building awareness, FM recruited local village retail partners or “Saral Jeevan Sayogis”. Since FM was to be the conduit to allow low cost, ‘designed for the poor’ products to enter the rural market, the team built partnerships with MFIs that created access to finance for purchasing these products. The model at the retail end was completed by creating service centers on a block level in each district, and hiring local field staff to market and educate people about clean energy products.



## SOCIAL IMPACT

FM provides sustainable, clean energy products to low-income families in rural India, reducing carbon emissions from traditional fossil fuels. It ensures improved health and quality of life to its consumers.

Based on demand for each product and quantity sold, FM calculates a Social Return On Investment (SROI) for each customer, measuring the

social impact of replacing kerosene and other dangerous and toxic practices with solar energy systems and improved cook stoves. By localizing initiatives, FM is building solutions for the people within their communities. Educating the consumers about different products and the importance of moving over to clean energy products, FM is creating lasting impact that reaches beyond its focus sector, energy.

In terms of its relationship with manufacturers of clean energy products, FM helps them with market entry and taking a successful pilot to scale. It helps manufacturers build their brands through innovative and ethical marketing campaigns to generate both, consumer education and brand value creation. Finally, it provides manufacturers with vital consumer insights and plays a strategic role in assisting product development for BOP markets.

Today, FM has operations across six districts in Rajasthan. The enterprise has begun generating revenues, and currently, 100% of the 2012 revenue of INR 1.4 lakh comes from LIS. The company plans to grow from a 2013 revenue of INR 12 lakhs to INR 1.5 crores in 2015, through deepening its presence in Rajasthan and diversifying to other states. The team estimates that the LIS will continue to contribute about 75% of revenues in 2015.

### OPERATIONS IN LOW-INCOME STATES (LIS) BUILDING PARTNERSHIPS WITH LOCAL STAKEHOLDERS FOR A SUSTAINABLE BUSINESS

Like many of their fellow social enterprises, FM started operations in Karnataka and Andhra Pradesh (AP), finding these states “liberal and active”, with a microfinance model already entrenched in the rural marketing fabric. Shah is originally from Rajasthan, and there were persistent calls for her to take FM to the state. Further, energy was a real need in Rajasthan and she was

fluent in the local language. Says Shah “LIS present us with huge opportunity because there are few other players in these states, and the scale efforts are much larger. Competition is much lower in Rajasthan than say AP.” She found that Rajasthan was a tough market for several “stereotypical reasons”, mostly to do the conservative culture of people in the state. Hiring local was tough and challenging. The one thing that aided FM and Shah to develop their franchise model in Rajasthan was the Marwari (local community in Rajasthan) sense of business – says Shah, “they spot an opportunity and they will run with it.” Even with this enthusiasm, the FM team realized that creating local teams meant that they needed more assistance. Decentralizing control and scale was tough.

The LIS also had few energy product manufacturers directly reaching the markets. FM was therefore offering producers access to a whole new market, where there was an established need, and through FM, there was now a distribution channel. FM’s relationship with the state Government, which is the other big stakeholder, is evolving as they start working with different departments such as the Child and Women Empowerment department or the Forestry department. The team’s biggest success to date has been with drawing women volunteers from Aanganwadis to become part of their field sales force. Other linkages include those with self-help groups, farmers, dairy workers and ASHA workers offering primary healthcare in the villages. Other partnerships include that with dairy cooperatives and

with TERI for technical certifications. The last was critical as the implication of the FM service meant that they brought in assessment, and worked for and with their rural buyers to put together an effective basket of choices.

## **ROAD AHEAD**

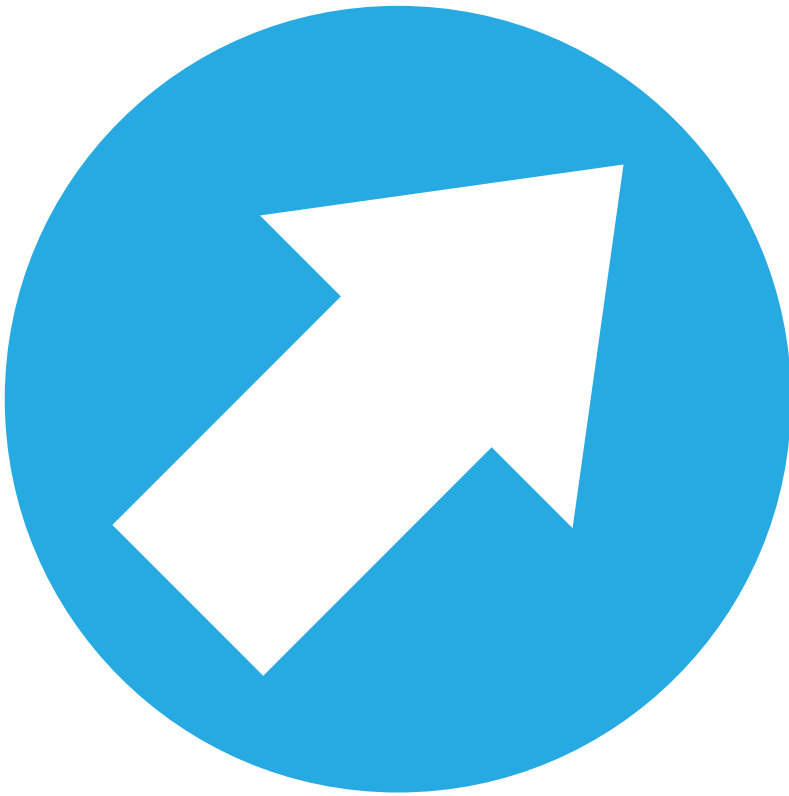
### **SCALING TO NEW GEOGRAPHIES TO IMPROVE ACCESS TO CLEAN ENERGY PRODUCTS**

FM is exploring opportunities to access grant money to offer a line of credit to their franchise entrepreneurs who can stock more products if they had this finance. Another plan is to scale their model to other LIS. The FM team receives calls from Odisha and Jharkhand, where people want FM's products. Interestingly, when these

inquiries are directed to the manufacturers of the products, they revert back saying they want the FM model of multi-product process in their state, rather than deal with individual manufacturers. This is validation of the premise the FM team started out with – the need to provide rural audiences with a basket of choices, assess the products and inform them about the products features and let them make informed choices – for long term impact.







IDEAS FOR  
**IMPACT**  
GRAM TARANG



GRAM TARANG PLANS TO SERVICE  
**15,000 GRAM PANCHAYATS** IN  
8 STATES BY 2015



## YEAR OF ESTABLISHMENT: 2011

### PROMOTER: VENKAT SIVANANDA KUMAR

Gram Tarang Inclusive Development Services (GTIDS) works as a Business Correspondent (BC) for banks to provide financial services to rural customers in low-income states (LIS) such as, Bihar, West Bengal, Odisha, Chhattisgarh and Uttar Pradesh. The company uses a network of local customer service providers and technology infrastructure to provide financial services at the village level.

In its quest for inclusive growth, India faces a huge challenge of mainstreaming 70% of the population that resides in rural areas. Lack of access to formal financial services is a major impediment to achieving this goal. According to the RBI estimates, more than 60% of the population in rural India is unbanked. Banks find it unviable to set up branches in remote areas due to high client acquisition cost, lack of credit history of clients, geographic distances and sporadic population density. To overcome these barriers and bridge the gap between banks and rural population, new forms of branchless banking options have emerged. Banks are leveraging advances in information technology in order to provide financial services in remote rural areas through business correspondents (BC) such as NGOs, self-help groups (SHGs), microfinance institutions (MFIs), non-banking financial companies (NBFCs).

### SETTING UP PROVIDING FINANCIAL INCLUSION TO RURAL CUSTOMERS IN THE LOW-INCOME STATES

Gram Tarang Inclusive Development Services (GTIDS) is has setup operations in Assam, Bihar, West Bengal and Uttar Pradesh. It works as a Business Correspondent for banks such as Andhra Bank, Punjab National Bank, and Union Bank of India, and provides financial services on their

GTIDS has improved financial inclusion in the low-income states by opening more than 1.2 million no-frills bank accounts, 50% of which are held by women. In the process, it has provided employment to over 4600 Customer Service Providers (CSP), more than 60% of which are women. A sister concern, Gram Tarang Employability Training Services (GTETS), provides technical and soft skills training to disadvantaged youth to make them employable.

behalf to rural customers in the LIS. GTIDS services include saving accounts, retail loans, cash management products, and cash remittance services.

GTIDS was established in 2011 by Venkat Sivanand Kumar, an alumnus of Xavier Institute of Management Bhubaneswar (XIMB). Before setting up GTIDS, Kumar worked in the financial inclusion space for over 5 years, in diverse organizations such as ICICI Bank, Intelicap and MFIs from Andhra Pradesh, Odisha and Karnataka. The core management team at GTIDS has extensive experience in rural development. Santanu Mohanty, another XIMB alumnus, has pioneered several self-reliant co-operative initiatives as a State Coordinator with the Government of Odisha for over 3 decades. Himansu Sahoo, also from XIMB, has more than a decade of experience in livelihoods promotion, specializing in tribal livelihoods and capacity building.

### THE BUSINESS MODEL BUILDING AN INFRASTRUCTURE OF USING LOCAL CUSTOMER SERVICE PROVIDERS AND INFORMATION TECHNOLOGY

GTIDS currently has a mandate to work as a BC for 5 banks - Andhra Bank, Punjab National Bank, United Bank of India, Union Bank of India and

Axis Bank. It operates in ten states in eastern and north-eastern India. GTIDS' business model includes two key components – the Customer Service Provider (CSP) and Information Technology Provider (ITP). The CSP is a local representative from the village executing ground operations, and the ITP provides technology infrastructure that facilitates and supports the CSPs.



GTIDS manages the recruitment and training of the CSP in the villages. It employs one CSP per village and equips them with a laptop, biometric device, smart card reader, data card printer etc. The CSPs provide services such as opening of accounts, personalization and delivery of smart cards, cash management, liaising with the base branches etc. GTIDS partnered with Atyati Technologies (recently acquired by Genpact Limited) to provide the technology platform as well as a fully automated information system for data collection and information management. GTIDS has already employed more than 4,650 CSPs across ten states and opened more than 1.2 million no-frills accounts, in less than two years.

Under the financial inclusion umbrella, GTIDS also distributes payments to beneficiaries of welfare schemes such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Social Security Pension payments and others. Till date, GTIDS has distributed more than INR 2 billion (USD 38.29 millions) earmarked for MGNREGA and Social Security Pensions in West Bengal. While this payment service is currently offered only in Tripura and West Bengal, GTIDS plans to expand it to other states by the end of 2012. GTIDS is also working with United Bank of India to implement the UIDAI's Aadhaar Project in West Bengal.

Exploring opportunities to leverage its CSP network to offer its customers non-financial products and services, GTIDS undertook distribution of solar kits manufactured by Thrive Energy Technologies. Currently, it distributes solar kits worth INR 27,000 (~USD 385) to its CSPs, as power cuts are rampant in the villages. The CSP bears 10% of the solar kit cost upfront, 50% in the form of EMIs, while NABARD subsidizes the remaining 40%. Going forward, GTIDS plans to offer the same products to its rural customers.

## **SKILLS TRAINING**

### **BUILDING SKILLS FOR EMPLOYABILITY IN SOCIALLY WEAKER SECTIONS OF SOCIETY**

GTIDS' sister concern -- Gram Tarang Employability Training Services (GTETS) – is a skill building initiative targeting the socially weaker sections of society. Millions of young Indians drop out of school each year, especially in rural India. They remain unskilled and are unable to sustain livelihoods or generate incomes. As a result, they suffer social and economic exclusion, and become prime recruitment targets for extremist groups, especially in the red corridor districts of East India. At the same time, India faces an enormous gap between supply and demand for skilled human resources to fuel economic growth. According to GTETS, 15 million youth need initial vocational training every year in India, while the existing private and public training capacity can only cater to 3 million youth. GTETS was established to meet this demand-supply gap and improve employability of youth in East India.

GTETS provides technical, soft skills and industry specific skills training to disadvantaged youth through a hub-and-spoke model, where ten satellite centers are established around one hub. Centurion Group's educational institutes serve as the hub at the city level while GTETS establishes satellite centers at the district level.

GTETS has entered into partnerships with government authorities, NGOs, SHGs and corpo-

# SOCIAL IMPACT

GTIDS has provided financial inclusion to more than 1.2 million rural customers and about 50% of these account holders are women. It has provided employment to more than 4600 local individuals as Customer Service Providers for the company, with more than 60% of them being women.

GTIDS has distributed more than INR 2 billion (USD 38.29 million) under MGNREGA and

rates for gathering youth who could be trained. Till date, GTETS has trained over 10,000 students in collaboration with government departments. In addition, more than 400 youth referred by GTIDS have been trained and employed with corporates such as Ashok Leyland Chennai, Cafe Coffee Day, TVS Sundaram Fastners, Jindal Steel etc.

## OPERATIONS IN LOW-INCOME STATES (LIS) PROVIDING FINANCIAL INCLUSION AND EMPLOYABILITY TO VILLAGERS IN NAXAL-AFFECTED AREAS

GTIDS chose to begin operations in the LIS due to their low levels of financial inclusion. Any effort to provide financial access had potential to create a significant impact in mainstreaming rural population from these states. GTIDS opened more than one million no-frills accounts in states such as Odisha, West Bengal, Bihar and Uttar Pradesh. MNREGA and Pension Payments are currently provided in West Bengal, with plans to extend them to other low-income states by the end of 2012.

GTETS began its training operations in the Paralakhemundi district of Gajapati, one of the extremist-affected districts of Odisha with a machinist training program for school dropouts. Over 75% of GTETS-trained candidates are from scheduled castes, scheduled tribes and other backward castes originating from disadvantaged districts of Odisha and Andhra Pradesh.

Social Security Pensions in West Bengal.

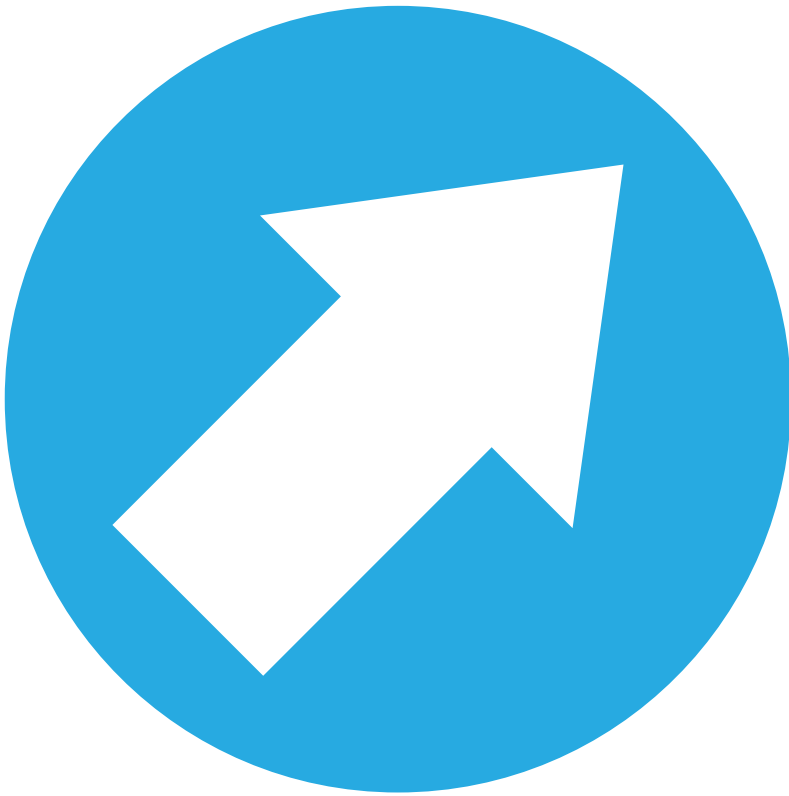
GTETS has successfully trained more than 10,000 students in eastern India with a strong placement record of more than 80%. In recognition of its contribution in Naxal-hit states, GTETS was adjudged as the 'Overall Best Performer' for the year 2011-12 by National Skill Development Corporation.

## THE ROAD AHEAD

### EXPANDING TO NEW GEOGRAPHIES, EXPLORING NEW OPPORTUNITIES BY LEVERAGING NETWORK OF CSPS

Both GTIDS and GTETS are planning to expand in the next few years. GTIDS plans to extend its services to about 20,000 villages, by increasing the size and strength of its CSP network. During this time, GTETS aims to expand its training network outside of East India, and to other states with high school dropout rates such as Jharkhand, Chhattisgarh, Bihar, Assam and Meghalaya.

Realizing the potential of the CSP network, GTIDS and Genpact (Information technology partner) have been jointly exploring new business opportunities that could use the CSPs as a potential distribution channel. GTIDS also plans to leverage this network to offer multiple non-financial products and services to rural population. One such opportunity is the distribution of solar kits through its CSPs. GTIDS plans to earn about INR 1.5 crores (USD 0.2 mn) in this financial year through sales of solar kits to its CSPs. It plans to scale this activity up, by reaching rural customers through their growing network of CSPs. By extending financial access and livelihood opportunities to India's rural populations, GTIDS is eliminating key barriers to rural development and supporting the movement with inclusive growth.



IDEAS FOR  
**IMPACT**  
GREENLIGHT PLANET INDIA



GREENLIGHT'S VILLAGE EMPLOYEES  
EARN INCREMENTAL INCOME OF  
OVER **USD 45/MONTH**



**YEAR OF ESTABLISHMENT: 2008**

**PROMOTERS: PATRICK WALSH, ANISH THAKKAR AND MAYANK SEKHSARIA**

Greenlight Planet manufactures and distributes durable, multi-use PV lighting devices targeted at people who do not have access to electricity. Majority of its customers are farmers and small business owners with earnings of less than INR 3,000 per month.

Greenlight designs its flagship product, the Sun

King brand solar lanterns with a focus on durability and affordability, and distributes the lamps through a growing direct-sales force comprised of local community members. It works in three low-income states, viz. Bihar, Odisha and Uttar Pradesh. These states have contributed 72% to the enterprise's total revenue in 2011-12.

Over 400 million people in India still lack electricity and depend on polluting, unsafe and expensive kerosene lanterns for lighting. These consumers spend more than INR 100 (USD 1.9) every month on kerosene for lanterns and endure dim, flickering light, unpleasant smoke and a constant risk of catastrophic fires. Greenlight Planet's solar-LED lights directly replace kerosene lanterns from homes, entirely freeing families of the associated recurring expense and risk. Registered in 2008, Greenlight Planet designs its Sun King brand solar lanterns with a focus on durability, and distributes them through a growing direct sales force comprising local community members. With a 255 member-strong team, it operates in Bihar, Uttar Pradesh and Odisha.

## THE FOUNDING TEAM

### INTRODUCING LIFE CHANGING TECHNOLOGY SOLUTIONS TO IMPROVE ACCESS TO ENERGY

Greenlight Planet was founded by three graduates from the University of Illinois - Patrick Walsh, Anish Thakkar and Mayank Sekhsaria. In 2005, on an assignment with an NGO 'Engineers without Borders', Patrick Walsh spent time setting up a biodiesel generator to operate farm implements in a remote un-electrified village in Odisha. Six months later, when he returned to the state to track progress of the project, he found that the generator was used daily as expected, but not to power farm implements. Rather, the villagers had wired the whole village to use the power from the

generator to light their homes.

Sekhsaria, one of the co-founders says, "We were quick to realize that centralized grid electrification could not scale quickly enough to meet the massive needs of people in rural areas who still live without access to electricity. We felt that a scalable solution had to start from the ground up, and it had to adequately meet consumer demand." The founders had started working on the idea in 2005, and by 2008, they had the Sun King finalized. The founders left their jobs in the U.S. and came back to India to register Greenlight Planet as a Private Limited company in 2008 and start operations in mid-2009.



As the product was targeted at the Bottom of the Pyramid (BoP) segment, affordability was a big concern. In order to keep costs low while retaining high quality, Patrick Walsh moved to China, where the company has outsourced its manufacturing. Walsh is in charge of production and R&D, while Thakkar and Sheksaria in Mumbai concentrate on marketing and distribution, expansion, brand building and raising capital.



In the beginning, talent acquisition, setting up a distribution channel and handling paperwork were some of the main challenges that the enterprise faced. As Sekhsaria puts it, “The biggest challenge was to do a lot with limited resources.” Bihar was the first state Greenlight focused on as it had one of the lowest electrification levels in the country combined with high poverty. Subsequently, they added operations in Odisha and Uttar Pradesh. Currently, Greenlight has 2 million users with footprints in over 25 countries.

## THE PRODUCTS - SUN KING SOLO AND SUN KING PRO

### REPLACING INEFFICIENT, EXPENSIVE AND UNSAFE TRADITIONAL KEROSENE LANTERNS WITH LOW-COST, EFFICIENT SOLAR LAMPS

Greenlight Planet manufactures and distributes multi-use PV lighting devices targeted at people who do not have access to electricity. Applying light-emitting diodes (LEDs) and the supply chain and manufacturing processes used by the broader consumer electronics sector, Greenlight Planet manufactures bright, durable lanterns that replace the traditional kerosene “hurricane” lamp.



It offers two types of solar lanterns - Sun King Solo and Sun King Pro priced at INR 900 (USD 17) and INR1,600 (USD 30.5) respectively. These are respectively 5 and 10 times brighter than kerosene lamps and are the lowest priced solar lights available for appropriately lighting a villager’s entire home. Where alternative products – Nickel Cadmium or Lead Acid batteries last for 10-12 months, Greenlight’s solar lanterns were the first to use Lithium Ferro Phosphate battery technology, which ensures light for 5 years before requiring a battery replacement.

Greenlight’s India unit had sold over 102,792 units of lamps in the last fiscal year. From February to August 2012, it has already sold over 85,000 units.

## THE BUSINESS MODEL

### ENSURING LAST MILE DELIVERY THROUGH AN INNOVATIVE DISTRIBUTION MODEL

Greenlight’s customer base primarily constitutes farmers (58%) and small business owners (23%) with 52% of its customers earning less than INR 3,000 (~USD 57) per month. Reaching out to such under-served populations in remote areas is difficult. Greenlight Planet meets this challenge by adopting a two-fold distribution and partnership strategy: the direct to village (DTV) network and working with established local partners.

Through DTV, Greenlight trains and recruits thousands of village level entrepreneurs or ‘saathis’ (meaning companions) to become educators and dealers of solar lights. It takes a long-term livelihood approach that assists Saathis in becoming microentrepreneurs and earning significant supplementary incomes. This helps Greenlight to effectively and efficiently reach remote and underserved markets.

To supplement the DTV network and reach geographies where Greenlight does not yet have a direct sales force, it works with established local partners. Greenlight’s local partners are NGOs, Corporate Social Responsibility (CSR) programs, development sector organizations, distributors, informal retailers, MFIs etc. These local partners are well-entrenched in their communities, and this helps the enterprise leverage their knowledge of the business environment and customer preferences.

## OPERATIONS IN LOW-INCOME STATES (LIS)

### LEVERAGING LOCAL KNOWLEDGE TO BRING ELECTRICITY TO UNDERSERVED AREAS

Greenlight launched its operations in Bihar in



# SOCIAL IMPACT

Greenlight Planet has reached 4 million customers in 4 years of operations. Some of its customers are in the most under-developed parts of India. The company has promoted over 1,000 micro-entrepreneurs or 'saathis'. A third party impact study found that the Saathis earn a monthly incremental income of over USD 45 by selling Greenlight products.

Access to light also increases the villagers' productivity and available hours for work. The impact study also revealed that Sun King households have reduced their kerosene usage by 50%, lowering their contribution to air pollution. According to Greenlight, Sun King families reported that their children were motivated to learn and add 2 productive hours to their day.

2009, and once the model was proven, it was replicated in Odisha and Uttar Pradesh. In the last fiscal year, Greenlight's LIS operations contributed 72% to total revenue. LIS operations are expected to contribute towards 88% of total revenue by 2013-14.

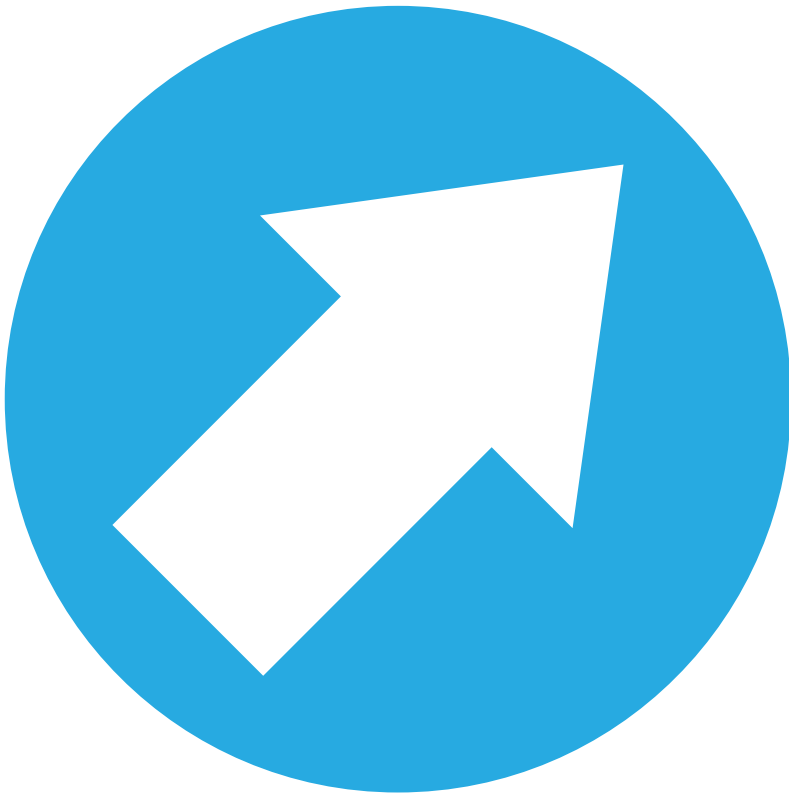
The low-income states have some of the lowest access to electricity figures in India. These states are also the toughest to penetrate for manufacturers. Greenlight, through its DTV network, has been able to build an arm to reach out to these remote villages. Sekhsaria explains that even within the LIS there are vast differences and a model that has succeeded in Bihar, may not succeed in Odisha unless it has been modified to suit the local context. He elaborates, "In Bihar, due to lack of opportunity, more people were willing to become saathis. In Odisha, where the education level among youth was higher, recruiting saathis was more difficult. The NGO network in Odisha, however, is good and we tapped into it to market our product."

## THE ROAD AHEAD

### EXPANDING EXISTING PRODUCT LINES, DISTRIBUTION NETWORKS AND FORGING NEW PARTNERSHIPS TO ACHIEVE WIDER IMPACT

Greenlight is targeting INR 87.4 crores (USD 16.7 million) in revenues in 2013-14, an exponential growth plan when compared to the INR 8.3 crores (USD 1.5 million) earned in 2011-12. It plans to consolidate existing operations and build a pan-India presence for its distribution network. It also aims to release an upgraded product every 4-6 months, as well as expand to additional product lines.

The strategy for horizontal expansion will begin with add-on products to the Sun King line, before expanding more broadly to encompass product lines that have huge market potential in the BoP space such as efficient cook stoves, clean water systems, agricultural processing equipment, thermo-electric generators. Sekhsaria best articulates Greenlight's thought process. He says, "Our foremost goal is to solve the access to energy problem for the BoP. The magnitude of the problem is so large that we can never solve the problem alone; it requires a joint effort by many. We wish to influence more entrepreneurs to work in this space."



IDEAS FOR  
**IMPACT**

GREENWAY GRAMEEN INFRA



GREENWAY GRAMEEN'S PRODUCT  
IS PROJECTED TO IMPACT  
**14 LAKH** WOMEN



**YEAR OF ESTABLISHMENT: 2010**

**PROMOTERS: NEHA JUNEJA AND ANKIT MATHUR**

Greenway Grameen Infra (GGI) develops innovative solutions for rural consumers based on their unique heat transfer technology. The Greenway Smart Stove emits less smoke and uses a smaller amount of fuel as compared to the traditional mud stove or ‘chulha’, thereby reducing indoor pollution.

GGI’s product design process combines user

feedback along with state-of-the-art technological tools. Interacting with consumers helps them in capturing design inputs as well as pricing and consumer-related insights. GGI works in six low-income states (LIS), viz. Jharkhand, Bihar, Rajasthan, UP, Odisha and West Bengal. These states represent over 50% of their target market and have contributed 41% to the enterprise’s annual revenue in 2011-2012.

Fuel usage in rural India tends to be inefficient. A large number of rural Indian households use kerosene for lighting hurricane lanterns, and biomass for cooking on traditional mud stoves. Given the poorly ventilated kitchens in most households, this energy usage is not only wasteful, but also harmful to health. Indoor air pollution from traditional cooking stoves is alone responsible for 300,000 deaths per year<sup>1</sup>.

GGI, a Mumbai-based social enterprise, focuses on developing products for the base of the economic pyramid (BoP) market and creating a robust distribution channel for disseminating these products. Registered in 2010 as a private limited company, it developed its first successful product, a portable metallic stove called the Greenway Smart Stove (GSS) in late 2011. The GSS is targeted at the rural and urban poor who do not have or cannot afford an LPG connection.

Currently, GGI supplies its products to 12 Indian states, six of which are LIS. It has 11 full time employees and has earned INR 0.5 crores (USD 102,000) in the 10 months that its sales operations have been active. As of September 2012, GGI had sold over 12,000 GSS units impacting 48,000 people with better savings, health and convenience.

## **SETTING UP**

### **SOLVING ENERGY PROBLEMS OF RURAL CONSUMERS THROUGH A UNIQUE HEAT TRANSFER TECHNOLOGY**

GGI was started by Neha Juneja and Ankit Mathur, who both have engineering and MBA degrees. Their first startup idea, aisapaisa.com, a futures and options portal offering insights and advice to retail investors failed. After aisapaisa.com, they started Greenway Ecodevelopment, which offered consultancy services for natural resource management, carbon finance and carbon credits. These consultancy assignments gave them a better understanding of rural consumers and markets. The income that came from Greenway Ecodevelopment cross-subsidized the travel and product development cost for GGI.

At GGI, their first product was a low-cost modular roofing project targeted at slum dwellers, who use tarpaulin to build their roofs. Even though the product was technically sound, it did not generate much consumer interest. Juneja says, “We learned from the failure of our first product- it was designed in the lab and then taken to the consumers and it didn’t work”.

For their next idea of designing efficient cook stoves for the BoP market, Juneja and Mathur decided to co-create the product with the target consumers rather than designing it in the laboratory. After nine distinct prototypes, they eventu-

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<sup>1</sup> Rajvanshi, A.K. 2009. “Energy R&D for Rural Development.” National Technology Day and Professor B.D. Tilak Memorial Lecture at National Chemical Laboratory (NCL), Pune. 1 October. <http://www.nariphaltan.org/ncl.pdf>

ally finalized the current design. Juneja says, “We kept the prototypes in around 50 shops and finalized the product on the basis of the prototype that people were willing to buy.” She elaborates, “Engaging with consumers not only helped us design a better product but also provided critical inputs in pricing points and other consumer related knowledge”.

The prototype was ready, but marketing the smart stove was not easy. Some of the main challenges that Juneja and Mathur faced include creating a strong distribution network, talent acquisition and retention, and overcoming registration and paperwork-related complexities for smooth inter-state trade within the country.

## THE GREENWAY SMART STOVE

### CREATING AN EFFICIENT ALTERNATIVE TO TRADITIONAL MUD STOVES

Around 160 million rural households in India use mud stoves to cook. Although rural households have increasingly acquired assets such as televisions, motorcycles and cell phones, women continue to cook on traditional mud stoves. This adversely impacts the health of the entire household. Created as an efficient alternative, the GSS is competitively priced and is fuel agnostic, as it works on any type of biomass fuel.



The GSS burns 70% less fuel and produces significantly lower emission. It is the only commercially available portable and fuel-agnostic<sup>2</sup> stove in India which complies with and exceeds the Bureau of Indian Standards’ (BIS) prescribed efficiency and emissions (health) criteria. The GSS is priced at INR 1,250 (USD 24) per stove - most other improved cook stoves (Envirofit, Philips Design, First Energy) in India are either priced

similarly or slightly higher than the GSS.

GSS employs a patent-pending reducer cone mechanism that induces air flow into the stove without the use of a fan. Given the user’s indicated requirements, the stove automatically adjusts air intake. This provides clean combustion through proper self-regulation of air flow. The design also shuns conventional ceramics, thus providing long-term durability.

GGI is working on three other products - a waste-heat electricity generator, point-of-use water purifiers and sanitary napkins. The GSS and other upcoming products are based on GGI’s proprietary heat and air-flow transfer simulation techniques.

## THE BUSINESS MODEL

### CO-CREATING INNOVATIVE PRODUCTS WITH USERS AND STATE-OF-THE-ART TECHNOLOGY

The product co-creation process helps the GGI team develop an in-depth understanding of their customers. This feeds back into product design and improvement. Their knowledge of the agriculture cycle and cash flow in rural India has helped them design appropriate marketing strategies for each segment of their clientele. For example, larger landowners tended to have disposable income during the harvest period, while farm laborers tended to have disposable income during the sowing season. Says Juneja, “Our biggest strength is knowledge of the consumer that we have built up.” This knowledge not only boosts sales of their present product, but also serves to guide GGI in future product development.

GGI has partnered with NGOs and other community development initiatives to spread awareness about the GSS, but does not engage them as distribution partners. The distribution model relies on developing four to five points of sale at every taluka or block level, primarily through existing

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<sup>2</sup> Fuel agnostic stoves run on all types of biomass fuel, such as wood, cow-dung and agro-waste.

# SOCIAL IMPACT

The Greenway Smart Stove (GSS) delivers significant fuel savings and smoke reduction. The fuel it uses is fully combusted, increasing thermal efficiency and releasing less harmful emissions of carbon monoxide, carbon dioxide, particulate matter and other greenhouse emissions. GSS usage has a direct bearing on consumer health and

lifestyle, particularly that of women who are primarily responsible for cooking. Women are often forced to spend hours collecting wood and other forms of biomass for cooking, resulting in considerable pressure on local resources. GSS' lower and more efficient fuel use alleviates this situation.

grocery shops, retail outlets, utensil stores and hardware shops in addition to putting up independent booths and doing live selling. Besides rural households, the company has expanded its customer base to include government agencies, NGOs and other community development initiatives.

## OPERATIONS IN LOW-INCOME STATES (LIS) DEVELOPING INNOVATIVE SOLUTIONS TO MITIGATE UNIQUE CHALLENGES IN THE LIS

At present GGI supplies the GSS to six LIS states, namely, Jharkhand, Bihar, Rajasthan, Uttar Pradesh, Odisha and West Bengal. In the last fiscal year, GGI's LIS operations contributed 41% to total revenue. This share is projected to increase to 65% by 2014-2015.

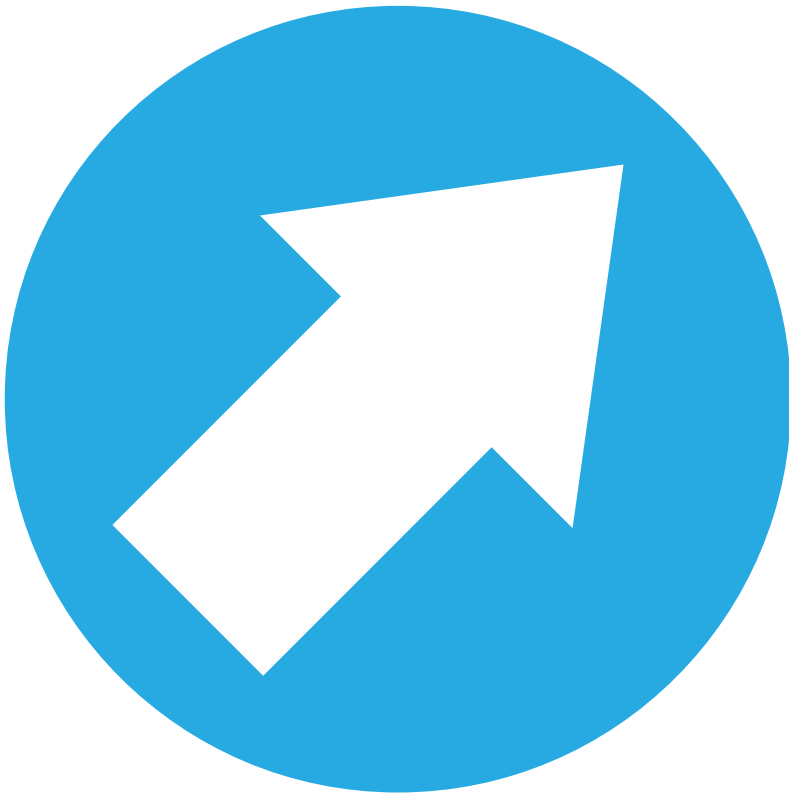
GGI's experience in these states has led them to believe that they require newer and innovative ways to work as compared to some of the other states. Juneja says, "In low-income states, the average gestation period is much longer as compared to high-income states such as Karnataka and Kerala." She elaborates, "When we started working in Jharkhand, we had to first link customers to Regional Rural Banks to enhance product affordability and only then the distributors got interested in marketing and selling the product." Moreover, goods transportation costs to LIS states like Bihar is higher and the paperwork required (road permits) to transport goods is also more complex and elaborate. For instance, the cost of transporting the stoves from GGI's factory in Faridabad, Haryana to Patna in Bihar is more than transporting the goods to Palakkad in Kerala, though Patna is almost half the distance from

Faridabad as compared to Palakkad. Despite these obstacles, Juneja and Mathur believe that given the lack of other viable options in these areas, the LIS present the opportunity for developing distinct product categories and enabling huge impact.

## THE ROAD AHEAD DEVELOPING NEW PRODUCTS, SETTING UP BETTER SUPPLY CHAINS AND ENTERING NEW MARKETS

By fiscal year 2012-13, GGI is targeting INR 4 crores (USD 760,000) in revenues, an exponential growth plan when compared to the INR 53.76 lakhs (USD 102,000) earned in 2011-2012. In addition to catering to the high demand for GSS, Juneja and Mathur plan to focus more on the research and development of new products and creating networks for marketing. GGI also plans to develop a better version of the GSS. Its pipeline of innovations includes a community stove which can cook for 50-100 people and a product called 'Jugnu' (meaning 'firefly') that will convert waste heat generated during cooking into electricity. "Jugnu will capture this heat and transfer it as electric charge to a battery. Essentially, the device will act as a battery charger," says Juneja.

GGI intends to raise capital from venture capital funds to set up robust supply chains for their upcoming products. They aim to expand logistics and taluka-level distribution capability in 16 Indian states. As Juneja states, "Our immediate target is to be India's largest biomass stove company by the end of the year." In the long term, the GGI team has set their sights on being rural India's largest consumer goods company.



# IDEAS FOR **IMPACT**

GV MEDITECH



GV MEDITECH PLANS TO CREATE  
A MICRO-CLINIC PER **50,000**  
OF RURAL POPULATION





**YEAR OF ESTABLISHMENT: 1992**

**PROMOTERS: DR. INDU SINGH**

GV Meditech provides world class healthcare services at a reasonable cost to cater to every strata of society. It seeks to reduce wrongful medical practices in rural areas by providing access to quality healthcare services.

GV Meditech has a hub and spoke model, with multi-specialty hospitals as hubs in cities and

micro-clinics, telemedicine centres, health camps established as spokes in the villages. It annually achieves more than a million outpatient visits, 25,000 deliveries, 32,000 surgeries and 64,000 prescriptions. A majority of GV Meditech's operations are in eastern Uttar Pradesh, focusing on six districts surrounding Varanasi, viz. Azamgarh, Chandoli, Mirzapur, Sonebhadra, Ghazipur and Jaunpur.

Access to basic healthcare is a big challenge in rural India where 70% of the country's population resides. The primary issue in healthcare delivery to rural areas is lack of basic infrastructure - India has 0.8 beds per 1,000 people and 0.6 doctors per 1,000 people – amongst the lowest in the world. Even this limited healthcare infrastructure has a heavy urban bias, as 80% of doctors, 75% of dispensaries and 60% of hospitals are situated in urban areas of the country. Rural populations in India have to travel more than 30 kms on an average to access some basic health care services. This often makes healthcare access more time consuming and expensive for them. Further, there are serious concerns about the quality of drugs available in rural areas. A study conducted by National Rural Health Mission indicates that seven out of ten drugs in rural areas were found to be substandard or counterfeit. Having lived and grown up in the small town of Varanasi in Uttar Pradesh, Dr. Indu Singh wanted to reverse this trend.

## **SETTING UP**

### **PROGRESSING FROM MATERNITY CARE TO A MULTI-SPECIALTY FACILITY**

The idea of GV Meditech was born from a desire to change the skewed distribution of healthcare delivery infrastructure in the country – as a first step, by establishing health centres in and around

Varanasi. It has established three 25-55 bed secondary hospitals in Varanasi, which caters to the semi-urban and rural population of eastern UP, western Bihar and parts of Jharkhand. GV Meditech also plans to establish small clinics at the village level, as Dr. Singh says, “The main impact of setting up centres in rural areas is the reduction in time and money spent by rural populations in travelling to bigger cities to access healthcare.”

For Dr. Singh, establishing GV Meditech was a natural progression from providing maternity and child healthcare services in Varanasi. In 1992, she started a small maternity and child healthcare center with just seven medical staff and two support staff. In the first year, the center clocked a turnover of INR 3 lakhs (~USD 5800). With the addition of new facilities and staff, the turnover touched INR 60 lakhs (~USD 115,000) by 1998. Eventually Dr. Singh sought to expand her healthcare operations and registered her company as GV Meditech Ltd. in 2002, with plans to set up a multi-specialty hospital in Varanasi. Access to capital, however, was a big challenge. Dr. Indu elaborated that, “I had just INR 1 lakh (USD 1,900) in my bank account at that time, so I started looking out for financial support to start my hospital. At the same time, Apollo Group of Hospitals was looking for franchisees to expand their operations to smaller cities and towns.” Spotting an opportunity, Dr. Singh approached the



Apollo Group for a franchisee in Varanasi, and set up her first hospital, Apollo Clinic, in 2005.

Dr. Singh, a gynaecologist, has done pioneering work in the field of research focused on maternal care, child care and in-vitro treatment. Her core management team comprises qualified doctors (Dr V.P Singh and Dr. Himansu Rai) and experienced management professionals (Chandra Shekhar and Ashish Chellaya). She is also guided and advised on strategic decisions by members of the GV Meditech Board including S K Rai (Managing Director Works, Hero Cycles Limited), Arun Kumar Singh (Managing Director at a real estate firm) and Ajay Maniar (a banking professional).

## THE BUSINESS MODEL

### LEVERAGING THE HUB-AND-SPOKE MODEL, WITH MICRO-CLINICS IN VILLAGES

GV Meditech operates on a hub-and-spoke model to deliver healthcare services in UP, with the hubs being multi-specialty hospitals set up at the city level. These hospitals provide secondary and tertiary healthcare services to people living in and around the city. The spokes offer basic healthcare services at the village level through telemedicine centers, health camps, micro-clinics and ambulance services.

Currently, there are three secondary/tertiary healthcare facilities operated by GV Meditech at the city level - the Apollo Clinic, GV Meditech Hospital, and Surya Meditech Hospital. The Apollo Clinic is recognized as one of the best medical clinics in Varanasi. It offers a complete range of services including specialist consultations, diagnostics, preventive health checks, dental clinic, In-vitro Fertilization (IVF) and Apollo pharmacy, all under one roof. GV Meditech Hospital is specially designed to cater to trauma cases, and provides outpatient consultation, diagnostics, trauma operation theatre, I.C.U., physiotherapy center, dialysis, pharmacy services, and preventive health check packages. Surya Meditech Hospital is one of the pioneer infertility and IVF centers in eastern UP. This centre is also equipped to manage high risk

pregnancies.

At the village level, the company has organized more than 100 health camps that provide health check-ups and preventive health care services. These help increase local awareness about health and reduce the incidence of malpractice. Dr. Singh says, "Awareness of the rural population about diseases and healthcare in general is very low. This lack of knowledge makes them victims of bad healthcare practices offered by unqualified and inexperienced doctors."



With a view to have a more permanent set up in villages with high population density, GV Meditech plans to have at least one micro clinic for every 50,000 people, and one in every five micro clinics will include pharmacy and ambulance services. It is also working towards creating telemedicine centers, which will provide specialized healthcare services to rural population in an economically viable way. The telemedicine centres are rural touch points, which will connect patients in the villages to the specialized doctors in cities, using information and communication technology (ICT). Dr. Singh says, "This is necessary to successfully reach the population at the grassroots. We are confident that this solution will cater to the medical needs of a large and marginalized population at affordable costs."

## OPERATIONS IN LOW-INCOME STATES (LIS)

### IMPROVING QUALITY OF HEALTHCARE DELIVERY IN SMALLER TOWNS

UP is home to the largest number of urban poor in a single state. Not only does the state bear a heavy burden of poverty, it also ranks low (15th out of 19 states evaluated) in terms of other social indicators such as the Human Development Index.

# SOCIAL IMPACT

GV Meditech has been providing quality health-care at affordable prices for the last two decades to the eastern region of Uttar Pradesh. Today, it serves about 7.1 million people in 15 districts in and around Varanasi, with a team of more than 150 staff members and 68 doctors.

In a single year, GV Meditech successfully manages more than a million outpatient visits, delivers more than 25,000 babies, performs around 32,000 surgeries and fills about 64,000 prescrip-

tions. It has organized more than 100 free health camps to educate villagers about the need for hygiene, cleanliness and preventive health check-ups.

More than 50% of the employees in GV Meditech's hospitals and clinics are women. The company believes that about 2.5 million women will be positively impacted by their initiative in next 3 years.

Conditions are especially bleak in the rural areas of the state. Having lived in UP for a large part of her life, Dr. Singh was keen to bring about a change in healthcare delivery within the state, and shares, "I have studied and practiced medicine in UP for decades now. I know that healthcare delivery in this state is in a poor condition and I was keen to change this. I always knew my focus will be UP, especially in and around Varanasi."

Currently, GV Meditech's operations focus on six districts surrounding Varanasi, namely Azamgarh, Chandoli, Mirzapur, Sonebhadra, Ghazipur and Jaunpur. It has built the first layer of hubs with bigger facilities at the district level, which offer secondary or tertiary treatment at a reasonable cost. Going forward, it will open smaller clinics or the spokes around these districts that will provide basic healthcare services to more remote rural areas.

## THE ROAD AHEAD

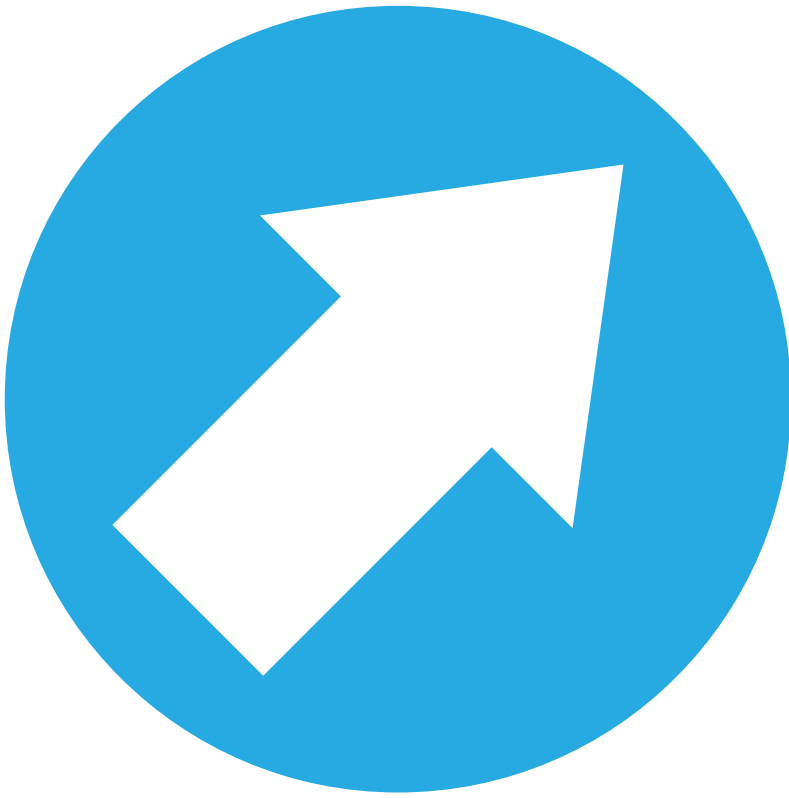
### EXPAND OPERATIONS TO VILLAGES THROUGH MICRO-CLINICS AND TELEMEDICINE CENTERS

GV Meditech's immediate focus is on expansion through micro-clinics and telemedicine centers in villages, connected to hospital hubs at the city and district levels. Specifically in next three years, it plans to set up 12 telemedicine centers around the Ghazipur healthcare facility.

In the medium to long term, GV Meditech plans to

open more secondary hospitals with modern facilities in UP, as well as expand the existing ones. To facilitate this growth, the company has managed to secure investments from Aavishkar, a Mumbai-based private equity fund focused on rural and social enterprises.

Another initiative that Dr. Singh is spearheading is training local people to provide basic health-care services to overcome the talent crunch in these areas. According to Dr. Singh, "Availability of qualified doctors, nurses and paramedic staff in the rural areas is a big challenge. So we decided to train local talent who that can provide basic healthcare and support services to people in their own villages." The Government will provide assistance to GV Meditech under Swarnjayanti Gram Swarozgar Yojana (SGSY), as well as certify the trained candidates to operate professionally. Most of these trained people would be employed at the micro-clinics or telemedicine centres in villages, as well as provide support to the health camps conducted in their areas. This initiative not only builds healthcare infrastructure in rural areas, but also provides employment opportunities to reduce migration of the younger generation to bigger cities. Dr. Singh aptly summarizes GV Meditech's approach to healthcare delivery, "Healthcare for us is not just an economical enterprise, but also a social one. We truly believe that through our practices we have been able to help bring health care of highest quality to the common man."



IDEAS FOR  
**IMPACT**

KANUNGO INSTITUTE OF  
DIABETES SPECIALITIES (KIDS)



KIDS IS THE **FIRST DIABETES  
SPECIALTIES** HOSPITAL IN  
EASTERN INDIA



**YEAR OF ESTABLISHMENT: 2008**

**PROMOTERS: DR. ALOK KANUNGO AND DR. MAMATA TRIPATHI**

Kanungo Institute of Diabetes Specialities (KIDS) was established in Bhubaneswar, Odisha as a comprehensive diabetic care unit. It is a 100-bed hospital equipped with advanced medical technology to offer high quality in-patient and out-patient consultation on diabetes and allied complications. The hospital also offers related

services such as pharmacy, pathology, ambulance services, physiotherapy and counseling. KIDS organizes health camps in rural areas across the state to spread awareness about prevention and control of diabetes.

Diabetes has assumed pandemic proportions worldwide, impacting more than 300 million people across the globe. India has been dubbed the ‘diabetic capital of the world’, as it is home to more than 20% of the world’s diabetic population. About 60 million people in India are suffering from diabetes currently, with another 77 million people in a pre-diabetes stage<sup>1</sup>. Earlier restricted to urban areas due to sedentary lifestyles, diabetes now affects and burdens the rural poor as well. Despite its prevalence, diabetes treatment in India is grossly neglected at the community as well as policy level. Lack of awareness among citizens combined with inappropriate treatment of the disease leads to multiple complications and disability. Disability further pushes the poor deeper into the vicious circle of poverty.

## **SETTING UP**

### **PROVIDING COMPREHENSIVE CARE FOR DIABETES AND ALLIED COMPLICATIONS**

According to diabetologist Alok Kanungo, the sudden phase of economic growth and development has fuelled the diabetes explosion in the country. He explains that when a very poor man, who normally struggles to get even one square meal per day, starts getting two or three meals every day, chances of him getting diabetes increases due to metabolic disorders. Also, sedentary lifestyle and unhealthy food habits have significantly increased the incidence of the disease. He established Kanungo Institute of Diabetes Specialities (KIDS) in 2008 in memory

of his father, Padmashree Binod Kanungo to serve poor people. Being a diabetic himself, the late Padmashree Binod Kanungo had a special interest in the field of diabetes prevention and care.

KIDS has established a 100-bed hospital, which is automated and fully equipped to offer high quality in-patient and out-patient consultation on diabetes and allied complications. The hospital also offers related services such as pharmacy, pathology, ambulance services, physiotherapy and counseling to serve as one-stop-shop for diabetes care. About 150-200 trained professionals are working towards various modules of diabetes prevention, care and cure at KIDS. Building up this infrastructure, however, was a bit of challenge for Dr. Kanungo. According to him, “It is difficult and time-consuming to acquire all the clearances to set up a healthcare unit in India. Arranging capital from banks or investors is also difficult in the initial stages.”

## **THE BUSINESS MODEL**

### **BUILDING A ONE-STOP SHOP FOR DIABETES CARE WITH OUT-PATIENT AND IN-PATIENT TREATMENT AS WELL AS ALLIED SERVICES**

The hospital earns its revenues from three main streams – out-patient treatment, in-patient treatment and other services (emergency care, physiotherapy, yoga, counseling etc.).

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<sup>1</sup> Indian Council of Medical Research – India Diabetes (ICMR-INDIAB) Study, 2011

KIDS' out-patient consultation is acknowledged as the largest and the most comprehensive consultation in the eastern region of India. The department provides complete care on prevention and treatment of diabetes to each patient. The out-patient consultation provides check-up for diabetes and allied complications to 80-100 patients per day and contributes about 44% of the total revenue.

The in-patient department is fully equipped with an emergency care unit, ICU, dialysis unit as well as pediatrics unit. It is also supported by an internal physiotherapy unit, canteen and round-the-clock pharmacy, ensuring that patients are treated with care. Providing quality healthcare at affordable prices to 50-60 patients at a time, the in-patient department contributes around 34% of the revenue.

Apart from the medical treatment, KIDS organizes education programs for patients and their family for quick and healthy recovery. As part of the comprehensive medical treatment, the program provides training on yoga, physiotherapy and lifestyle modification to improve the patient's regular functioning and enhance the quality of life. These services contribute 22% to the revenue.



KIDS is also actively involved in organizing research and educational programs on diabetes in collaboration with leading educational institutes. For example, KIDS is associated with Karolinska Institute (Sweden), one of the world's leading medical universities, to facilitate knowledge exchange on diabetes. Similarly, KIDS is associated with IGNOU (India) for conducting a certified course on community diabetes management. It is also associated with National Institute of

Science Education and Research (NISER).

## **OPERATIONS IN LOW-INCOME STATES (LIS)** **CONTROLLING AND MANAGING THE SURGE OF** **DIABETES IN ODISHA**

Odisha accounts for around 10% of the diabetic population in India, with 50-60 lakhs citizens suffering from the disease. A study conducted by KIDS in 2011 found that diabetes prevalence is increasing rapidly in Odisha, impacting 15% of the urban population, around 9% of the semi-urban population and 5.5% of the rural population.

Dr. Kanungo realized that the incidence of diabetes is very high in Odisha, and needed a solution. Besides, Kanungo was practicing medicine in Cuttack, Odisha. In order to set-up a big hospital, he decided to move to the state capital, Bhubaneswar. According to Dr Kanungo, "Bhubaneswar was attracting a lot of attention and investment as health-hub for the state. Government and corporates were showing a lot of interest in bringing quality healthcare to Bhubaneswar."

## **THE ROAD AHEAD** **EXPANDING REACH ACROSS ODISHA BY SETTING UP** **NETWORK OF VILLAGE CARE PROVIDERS AND** **DISTRICT CENTERS**

KIDS' primary focus is to expand operations to cover all of Odisha. While the hospital caters to populations in and around Bhubaneswar, KIDS wants to take diabetes care delivery to the villages. It plans to build healthcare delivery infrastructure in villages by training and promoting local youth as diabetes care providers at the village level. Dr. Kanungo explained that, "Local youth from villages will be provided with a bicycle, glucometer, blood-pressure monitor, first-aid kit and mobile phones. Using these facilities, they will provide basic diabetes check-up at the door-steps of villagers, and refer them to the main hospital if needed." The company aims

## SOCIAL IMPACT

KIDS is recognized as the pioneer in diabetes research and innovation in eastern India.

KIDS has organized five state-level workshops to discuss and advocate appropriate policy changes to fight diabetes. It has mobilized more than 2,000

volunteers across the state to understand practical ways to prevent diabetes.

KIDS has also organized more than 200 health camps in around 30 districts of Odisha to spread awareness about diabetes.

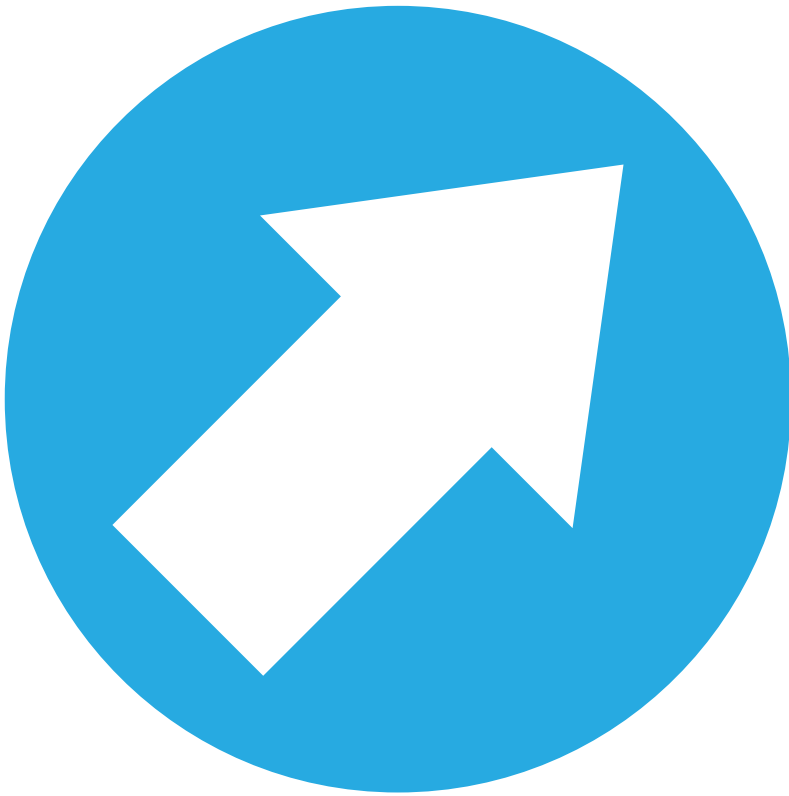
to train about 5,000 youth in next 3-5 years, with a belief that each individual will earn about INR 6,000 (USD 113) per month through this service.

KIDS also plans to set up 15 district centers in Odisha's tier II towns over the next 2 years, and cover the entire state in the next 3-5 years by setting up 30 district centers. According to Dr. Kanungo, "The main objective of setting up district centers is to reduce travel by rural population to access quality healthcare." He elaborated that, "These centers will provide basic clinical and diagnostic services at the district level. For specialized care, they will be linked to the main center in Bhubaneswar through telemedicine."

KIDS believes that these district diabetes centers serve as a scalable model to provide appropriate diabetes care in rural areas. After having covered the state of Odisha, KIDS will eventually open such district centers in neighboring states like West Bengal, Jharkhand and Chhattisgarh.

India needs significant investment in healthcare delivery, as access to hospitals and doctors is still very limited. KIDS aims to help remedy this situation by expanding their services using local talent and technology. According to Dr. Kanungo, "Our focus of expansion is horizontal; in that we aim to provide affordable and quality healthcare to more and more patients."





IDEAS FOR  
**IMPACT**

KAUTILYA PHYTOEXTRACTS



KAUTILYA PHYTOEXTRACTS  
INCREASES FARMER EARNING BY  
**INR 5,000-28,000** PER CROP



**YEAR OF ESTABLISHMENT: 2008**

**PROMOTERS: SANJEEV SRIVASTWA AND PABITRA PAHARI**

Kautilya Phytoextracts seeks to alleviate the troubles of the tribal marginal farmers of Bihar and West Bengal by generating alternative means of livelihood and strengthening the rural economy. This will also reduce rural youth migration and rise of extremist movements.

Kautilya currently operates in Bihar and the northern parts of West Bengal. The availability of

wasteland and human resources in these states made it easier to start medicinal plants operations. Kautilya's medicinal plants initiative resulted in utilization of 300 acres of semi-arid land, increased income for farmers, and elevated 5000 farmers from below-poverty limits. Women engaged in the incense sticks initiative are more independent and self-sufficient.

More than 60% of rural India lives below poverty line, and the situation only gets worse in the tribal areas of Bihar and West Bengal. Tribal population in these states suffers from acute poverty as income generation in these areas is meager. The land in these areas is mostly wasteland and unsuitable for conventional cultivation. Limited livelihood options is driving people out of their home states to other more prosperous states in India, causing decline in potential human resource to fuel the rural economy in these states. On the other hand, states like Maharashtra are protesting the heavy inflow of migrant population as this puts pressure on available infrastructure and public facilities. Providing sustainable livelihoods in their home states is one way to tackle multiple challenges of acute poverty, limited livelihood options and migration.

## **THE FOUNDING TEAM**

### **IMPROVING EARNING POTENTIAL TO REDUCE MIGRATION**

Sanjeev Srivastwa, the CEO of Kautilya Phytoextracts, was disturbed by such protests against migrants in Mumbai, Maharashtra. He believed that people were migrating because they did not earn enough back home. He wanted to develop the poor and underdeveloped areas of Bihar into profitable businesses, and thereby improve farmers' conditions substantially.

With this objective, he, along with his partner Pabitra Pahari, began evaluating business potential in tribal areas of Bihar. They realized that the tribal areas are naturally endowed to grow medicinal crops, which serve as raw materials for pharma companies. These medicinal crops however, are seasonal and highly water dependent. Growing these crops using traditional farming methods made it economically unviable for farmers, as cost of cultivation far exceeded the earnings. Srivastwa says, "We felt that if the farmers were provided guidance on modern farming techniques, cultivating these medicinal crops could become profitable." They developed a business plan, and in 2008, set up Kautilya Phytoextracts with the mission to alleviate the troubles of the tribal marginal farmers and strengthen the rural economy.

Today, Kautilya Photoextracts is a 40-member team with a topline of INR 10 crores (USD 1.9 mn), supporting about 10,000 farmers in Bihar and West Bengal. Kautilya's core management team consists of three members. Srivastwa has a management degree, along with a decade of experience in business management, marketing and entrepreneurship. Pahari has an experience of 33 years in banking and finance. Dipti Srivastwa has more than 8 years of experience in business and rural entrepreneurship. Additionally, they have a team of highly experienced and knowledgeable agricultural experts advising them on techniques

and issues related to farming in the two states.

## **THE BUSINESS MODEL**

### **USING WASTELANDS TO CULTIVATE MEDICINAL HERBS, BREEDING RABBITS AND MANUFACTURING INCENSE STICKS**

Kautilya Phytoextracts began their operations in Bihar by helping farmers utilize their wastelands to grow medicinal herbs like Stevia, Coleus, Tulsi, Aswagandha, Gurmar, Kaunch, Karela (desi), Artemisia annua. The company provides training and guidance to farmers to grow herbal plants on their wasteland using better farming techniques. They also provide direct market linkages by signing buy-back agreements with pharma companies. These buy-back agreements eliminate marketing uncertainties and provide an assured customer base to farmers. Since they directly sell the farm produce to pharma companies and eliminate agents or middlemen, Kautilya is in a position to demand better prices for the farmers. This business initiative contributes to about 50% of the firm's revenues currently.



In addition to medicinal herb farming, Kautilya also manufactures incense sticks, to aid its efforts to improve income generation for the poor in these two states. In the Dooars region of North Bengal and the Jamui district in Bihar, Kautilya has employed 5,000 women to produce incense sticks. The women are divided into 15-20 self-help groups. The Kautilya team trains and supplies them with machinery to make bamboo sticks used for charcoal rolling, that are finally turned into incense sticks. This business initiative has grown significantly, contributing about 40% of the revenues in 2011-12.

Adding on to these livelihood generating initia-

tives, Kautilya recently started promoting rabbit breeding in Bihar. The Kautilya team trained rural farmers and women in rabbit breeding, with the objective of meeting the significant demand for rabbit meat in southern India and countries in the Middle East. The project was extended to West Bengal as well. Delta Farms, Chennai is assisting them in building the rabbit breeding project at Bihar.

## **OPERATIONS IN LOW-INCOME STATES (LIS)**

### **LEVERAGING AMPLE LAND AND HUMAN RESOURCES COMBINED WITH MODERN FARMING TECHNIQUES**

The company primarily operates in Bihar and West Bengal. Bihar accounts for nearly 80% of the company's operations, while West Bengal accounts for the rest. Srivastwa, who hails from Bihar, was disturbed with the migration from Bihar on account of poverty and lack of employment opportunities for small and marginal farmers. He wanted to provide livelihood options to the farmers and make them financially sustainable within their states, and to prevent the exodus to other states.

As he evaluated business potential in Bihar, he realized that low-income state such as Bihar has two very important resources for setting up business units - ample land and human resources. As a result of this, the cost of setting up operations and procurement of materials in this area is low. Spurred by these conditions, Kautilya adopted medicinal herb cultivation in Bihar – a state with plenty of wastelands and man power. A year later, it expanded operations to the northern region of West Bengal, which had a similar nature of soil and crop properties. Going forward, Srivastwa believes that his focus will continue to be these two states, and that Bihar will continue to account for about 80% of his company's operations, while West Bengal would form the rest of the business pie.

## **THE ROAD AHEAD**

### **EXPLORING NEW GEOGRAPHIES, ACTIVITIES AND VALUE ADDITION FOR IMPACT**

## SOCIAL IMPACT

Kautilya has positively impacted around 10,000 farmers in 300 villages, across 15 districts of Bihar and West Bengal. It has been able to increase earnings of the farmers from INR 5000 (USD 95) per acre to INR 20,000 - INR 30,000 (USD 380–570) for every harvest of medicinal plants.

The Kautilya team has succeeded in making about 300 acres of semi-arid land usable for farming. By

imparting training, they have tremendously increased the knowledge and exposure of farmers. Finally, they have provided the farmers direct and sustainable access to customers.

The initiative of setting up rabbit breeding in rural areas has lifted 1,500 families out of poverty. By training 5,000 women for incense manufacturing, and employing them as microentrepreneurs, Kautilya has made them independent, self-sufficient and given them a stable livelihood.

All the three sectors that Kautilya operates in are geared for high growth in future. The domestic medicinal herbs market is estimated to be INR 14,500 crores (USD 2,760 mn) by the end of 2012, growing at a CAGR of 20%. The domestic incense sticks market is estimated to be around INR 1,000 crores (USD 190 mn), and is growing at about 7% p.a. Rabbit breeding is a relatively new concept, but the untapped demand is huge.

Kautilya plans to expand its medicinal plant operations to newer geographies within Bihar. The company is also conducting trials to grow newer herbs with the assistance of Dabur, a herbal products major in India. Seeing potential in value addition, Kautilya is planning to put up a solvent

extraction plant in Bihar to reduce transportation costs of herbs, add value to its products and increase profits. Other plans include setting up food processing units for dairy and khoa/paneer manufacturing, poultry farming, fisheries, fish feed manufacturing etc.

These initiatives should help them meet their revenue target of INR 15 crores (USD 2.9 mn) in 2015, from revenue of INR 10 crores (USD 1.9 mn) in 2011-12. Srivastwa says, “We have taken the first step in this direction by providing alternate employment opportunities. The potential opportunities to help alleviate the problems of rural India are plenty.”



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